

Honouring our best

This year's Kaplan and Martha Cook Piper award recipients.

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International Polar Year

Researchers are front and centre in exploring the ends of the Earth. Pages 9-12.

Over hill and dale

Ultramarathoner undaunted by 100-mile runs.

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UNIVERSITY OF ALBERTA

folio

Volume 44 Issue 13

MARCH 2, 2007

<http://www.ualberta.ca/folio>

There's no such thing as a picky grizzly bear

Diverse diet helps bear adjust to climate change

By Phoebe Dey

A new University of Alberta study, which tracked eating habits of grizzly bears living in the Alberta foothills, sheds some light on their varied diet and activity pattern.

"Alberta bears have remarkably diverse diets," said Dr. Mark Boyce, biological sciences professor and co-author of the study, recently published in the *Journal of Mammalogy*. "They'll eat just about anything."

Little is known of the diets of grizzly bears living in boreal forests also used by humans. This new research study is the most comprehensive examination of grizzly bear diet ever conducted in Canada. Using global positioning system (GPS) radiotelemetry technology and analyzing 665 feces samples collected from 18 grizzly bears over a period of three years, the scientists also found that the bears packed a lot of activity into 24 hours.

The new research looked at five different activities the bears use to find food – whether it feeds on flowers, insects and plants or kills other animals.

The diverse diets help cushion the grizzlies against climate change and other vagaries of the environment, said Boyce. Specifically, the research team found that bears living in the foothills are effective predators of moose and deer. They are especially good at killing moose calves during the difficult spring, when other foods are not yet available, said Boyce. Mountain bears are largely vegetarian, by comparison.

The scientists identified 40 different food items, examining each for seasonal patterns of use and differences among mountain and foothills environments. The root of sweet vetch plants dominated early spring diets, while preying on ungulates was greatest during late spring, although the timing varied between foothill and mountain bears. Moose are the most common ungulate eaten by the bear (83 per cent), especially newborns (54 per cent), with white-tailed and mule deer (16 per cent) and elk (one per cent), minor in comparison.

Rodents, insects and birds were also



Grizzly bears that live in the Alberta foothills have a lengthy menu. Biologist Dr. Mark Boyce found that the bears enjoying dining on everything from flowers, insects and plants to ungulates, like moose.

consumed. Green vegetation dominated early summer diets and as fruit ripened in early August, berries were added to the menu.

The scientists also learned that most of the activity of the east-slopes bears takes place in the daytime, especially morning and the evening. This is in contrast to bears living in spots where more frequent contact with humans takes place, such as Banff National Park, where most bear activity has become nocturnal.

Boyce said food sources so near to highways and roads are dangerous for the animals.

"Bears are eating substantial amounts of clover and alfalfa, which are common

roadside plantings," said Boyce. "Because these roadside plantings are attractive to bears, this can put the bears at risk of contact with humans. Nearly all new roads being constructed in the province are built by industry, either for timber harvest or oil and gas development."

"We should encourage industry to avoid using such attractive food items when planting in ditches and roadsides. It would be much better to use native grasses and other native plants to stabilize road banks and ditches. Most bear deaths occur near roads, and we want to avoid attracting bears to areas near roads."

The co-authors on this paper are Robin Munro, a former U of A research associate,

"Alberta bears have remarkably diverse diets. They'll eat just about anything."

– Dr. Mark Boyce

Dr. Scott Nielsen, a post-doctoral fellow at the U of A, M.H. Price from the University of Victoria and Gordon Stenhouse, from the Foothills Model Forest. ■

Armour named Champion of Public Education

Long-time women in science advocate honoured

By Ileiren Byles

Margaret-Ann Armour is clearly at home in front of hundreds and hundreds of Grade 6 girls. With colourful chemical mixtures glowing on one side of the table and dry ice bubbling out of a beaker on the other side, the University of Alberta associate dean of science (diversity) received applause and whistles from the crowd at the opening of the 2007 Choices conference last month.

"She's a rock star," said Grace Ennis, co-ordinator of Women in Scholarship, Engineering, Science and Technology (WISEST) at the U of A. "She can hold a class of 400 in the palm of her hand, so they're following every word and responding with enthusiasm. It's the way she communicates her own particular passion to the students that they remem-

ber and it has an impact on them."

Armour's commitment to education and passion for science was recognized by The Learning Partnership program in February. The Toronto organization brings together business, education, government, labour, policy-makers and the community to develop partnerships that strengthen public education in Canada. On Feb. 12, Armour added another to her long list of awards, when she was named a Champion of Public Education by The Learning Partnership.

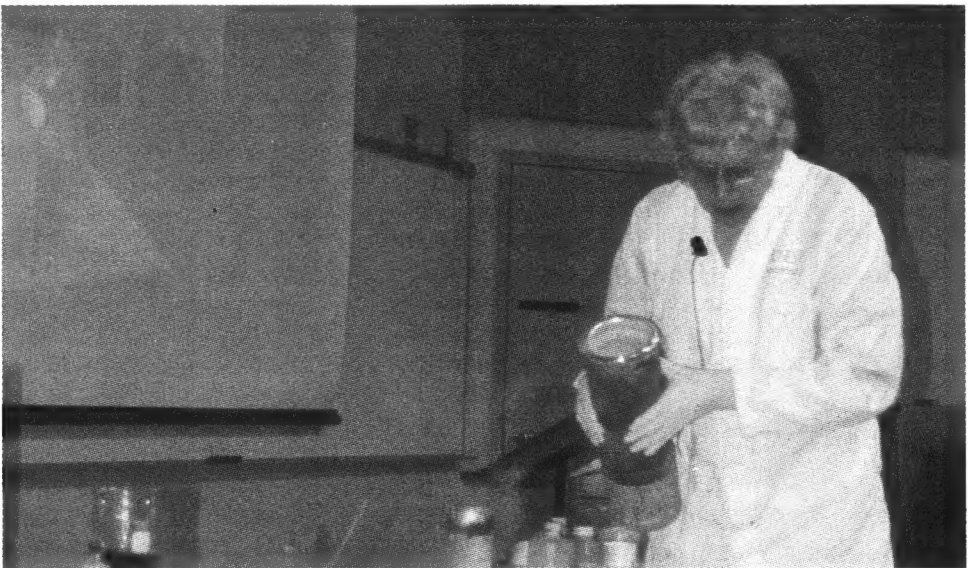
"I guess they thought I was some kind of ambassador in bringing together the community and sharing my love of learning," said Armour. "I was very honoured to be given this tribute."

Armour is an ambassador and a role model for the entire university, said Ennis.

"She's been such an advocate for reaching out to the community and making science accessible to young women," she said. "I went with her to a high school in Spruce Grove and she did her presentation. And afterwards, the teacher was just so grateful, saying, 'We never get anyone from the university out here and this just means so much to the students.' It's true, for the students to hear this information from one of the researchers on campus just gives them a whole different understanding."

Understanding isn't all that difficult if you can connect science to a student's everyday life, said Armour. That's one of the reasons the recognition from The Learning Partnership means so much.

"One of the things The Learning Partnership does is Take Your Kids to



Dr. Margaret-Ann Armour has been named a Champion of Public Education for passing on her passion for science.

Work Day, where they encourage parents and others to bring kids to work and I think that connection with work, and school is also very important, like between school and real life," she said.

"Margaret-Ann has always made science accessible," said Ennis. "She has a school in the city that calls her the school 'mum' and for Mother's Day, they celebrate Margaret-Ann. She's taking them under her wing. All the kids get little white lab coats and lab glasses and she does her science presentation to the whole school. But it's more than just the school, she invites the parents and she's a believer in grandmothers being involved. So you can just see how she reaches out to the community at all ages." ■

"She can hold a class of 400 in the palm of her hand, so they're following every word and responding with enthusiasm."

— Grace Ennis

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folio

Volume 44 Issue 13

OFFICE OF THE VICE PRESIDENT (EXTERNAL RELATIONS)
OFFICE OF PUBLIC AFFAIRS,
6TH FLOOR GENERAL SERVICES BUILDING
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Folio's mandate is to serve as a credible news source for the university community by communicating accurate and timely information about issues, programs, people and events and by serving as a forum for discussion and debate.

Folio is published 20 times per year.

The editor reserves the right to limit, select, edit and position submitted copy and advertisements. Views expressed in Folio do not necessarily reflect university policy. Folio contents may be printed with acknowledgement.

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ISSN 0015-5764 Copyright 2006



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Top researcher to fight prion-related diseases at U of A

Dr. David Westaway becomes a Prion Institute Scholar

By Caitlin Crawshaw

Internationally acclaimed researcher Dr. David Westaway, the new director of the Alberta Centre for Prions and Protein Folding Diseases at the U of A, has become one of two inaugural Prion Institute Scholars.

Previously a researcher with the Centre for Research in Neurodegenerative Disease at the University of Toronto, Westaway has become a Prion Institute Scholar alongside Dr. Stefanie Czup, a Bovine Spongiform Encephalopathy (BSE) expert with the Canada Food Inspection Agency.

The scholar program was recently established by the Alberta Prion Research Institute, which funds research into the prevention and management of prion-related diseases, like Alzheimer's and Parkinson's disease.

Westaway is a molecular biologist who completed his postdoctoral training with Nobel laureates Harold Varmus and Stanley Prusiner, helped to define the molecular biology of prion diseases. His work on cellular prion protein and two related proteins led to insights about Alzheimer's disease.

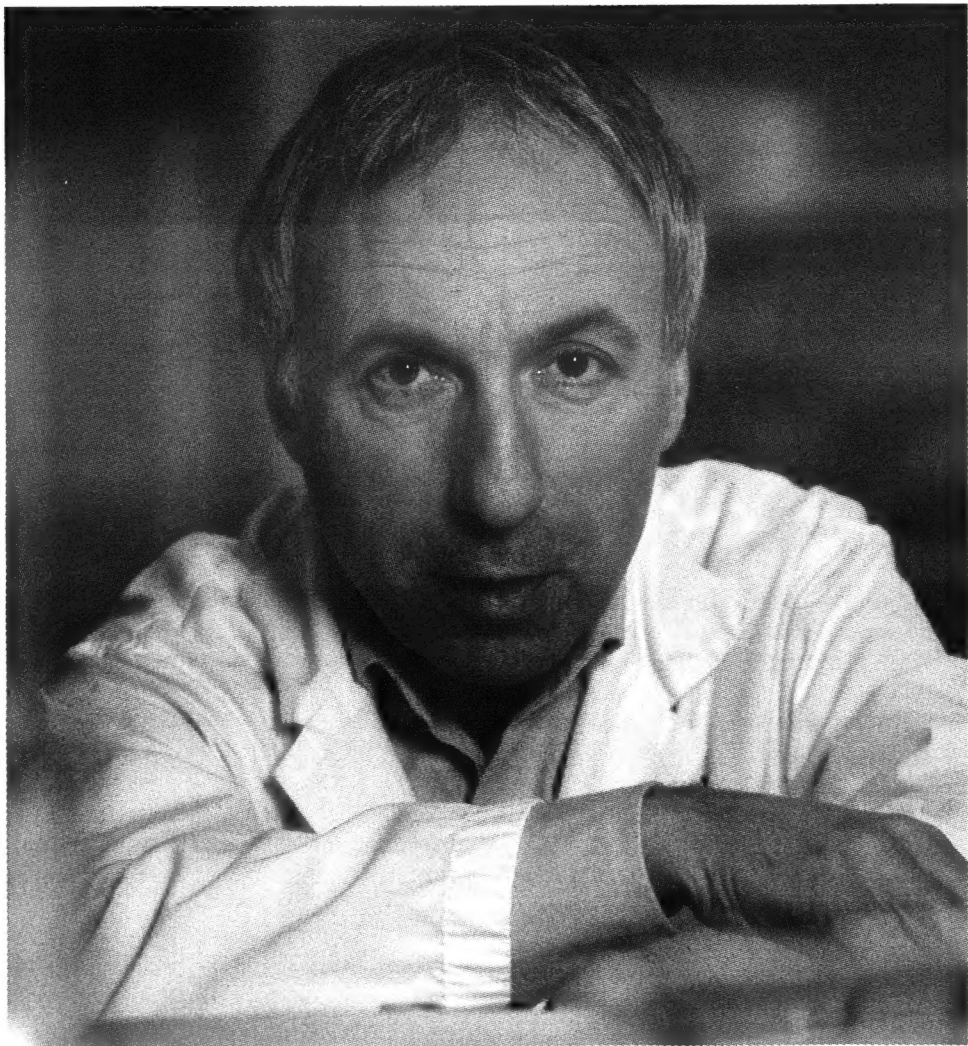
Most neurodegenerative diseases are protein-folding diseases. These diseases are caused by prions, a type of protein that causes neurodegenerative diseases when they fold incorrectly. Prion diseases also include BSE and chronic wasting disease.

This field of study is relevant to the public on many levels, says Westaway.

Prion research is an "enormously practical problem on a very day-to-day level with an impact on agriculture," he said.

Prion diseases are also critical to human health and "some of the tools of prion research have been put to good effect in neurodegenerative diseases that are common in humans."

Westaway says his research will greatly



Dr. David Westaway, the new director of the Alberta Centre for Prions and Protein Folding Diseases, has now become a Prion Institute Scholar as well.

benefit from his new post at the Alberta Centre for Prions and Protein Folding Diseases at the Faculty of Medicine and Dentistry. Working with the many experts on campus – including protein chemists and

computational scientists – as well as utilizing the talent and instrumentation at NINT, for instance, will propel his work forward.

"It will let us do what we do better and faster." ■

New research chair spurs lipid research

Dr. Suresh Narine named the NSERC-Bunge-ACPC Industrial Research Chair in Lipid Utilization

By Caitlin Crawshaw

A \$3.27-million investment from government and industry will boost lipid utilization research at the University of Alberta.

Dr. Suresh Narine was named the NSERC-Bunge-ACPC Industrial Research Chair in Lipid Utilization. The research chair represents a \$1.52-million investment from the Natural Sciences and Engineering Research Council (NSERC), \$1.25 million from canola and oilseed processor Bunge, and \$500,000 from the Alberta Canola Producers Commission (ACPC).

Lipid science targets issues ranging from dietary health risks associated with trans fats to the rising cost of gas, says Narine, who heads up the Alberta Lipid Utilization Program (ALUP).

“Our team has developed some novel ways to create zero trans fats in margarines and shortenings, without increasing the level of saturated fat, which has been a problem in other technologies,” he said.

Narine’s team is also transforming vegetable oils into materials like plastics and industrial lubricants. “Our research has already resulted in a patent for biodegradable plastic,” said Narine.

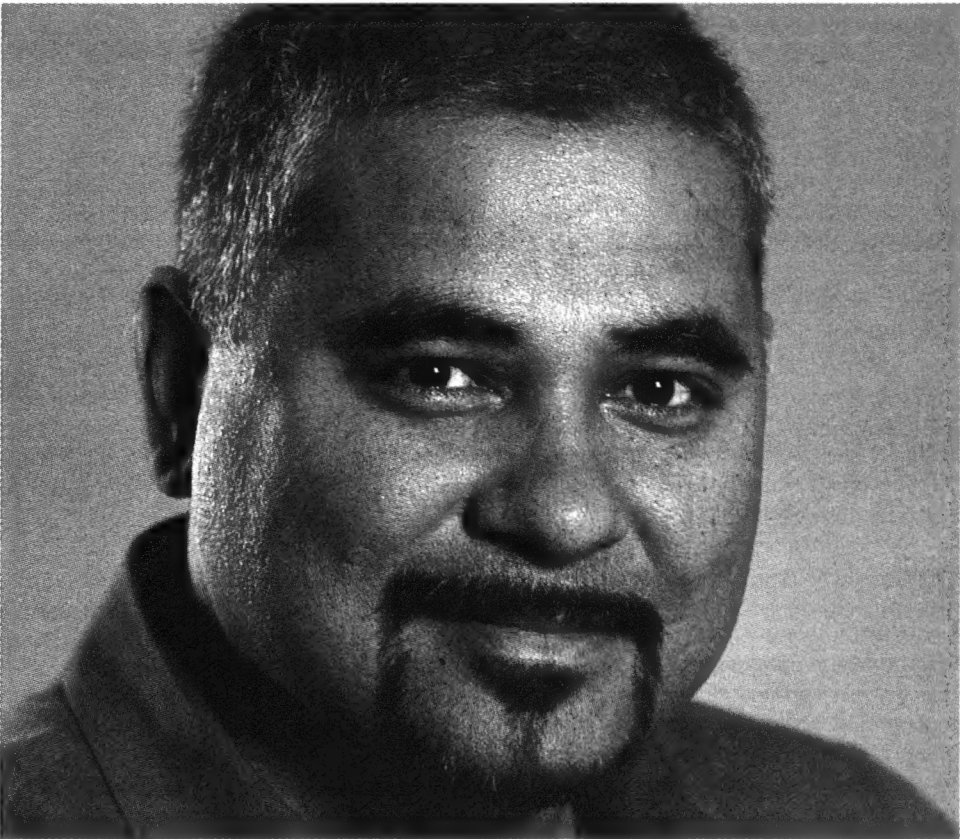
This research reduced pollution and promotes healthy diets and also has solid economic benefits. Finding added value in canola and flax oil, for instance, is “a very

“Our team has developed some novel ways to create zero trans fats in margarines and shortenings, without increasing the level of saturated fat, which has been a problem in other technologies.”

– Dr. Suresh Narine

important economic activity for Alberta.” Narine delights in the many applications of his work. “It makes doing this kind of science exciting, because one can see the relevance of one’s work.”

Establishing the research chair brings the five-year funding of ALUP to \$10.77 million. Launched in the summer of 2005, the program is supported by state-of-the-art laboratories at the U of A’s Agri-Food Discovery Place and the Agri-Food Materials Science Laboratory. The research group focuses on developing new and improved food uses for lipids, as well as non-food uses such as cosmetics, bio-lubricants, bio-hydraulics, specialty chemicals and bioplastics. ■



Creative Services

Dr. Suresh Narine’s lipid research will surge ahead after becoming the NSERC-Bunge-ACPC Industrial Research Chair in Lipid Utilization. Lipid research is a broad area, encompassing everything from the development of healthier fats for foods to the creation of bio-plastics.

Exhaustion can define our health, says researcher

Notes significant differences between tiredness, fatigue and exhaustion

By Phoebe Dey

Instead of dismissing grumbings about being exhausted, people should take these complaints seriously before they lead to a worsened health state or even death, says a University of Alberta researcher.

Dr. Karin Olson, a U of A professor from the Faculty of Nursing, argues there are differences between tiredness, fatigue and exhaustion and that recognizing those distinctions will help health-care workers create better treatment plans for their patients. Her findings are published in the current issue of *Oncology Nursing Forum*.

Olson has studied fatigue in six ill and non-ill populations: shift workers, recreational long distance runners, individuals with cancer in active treatment or palliative settings, and individuals diagnosed with depression or chronic fatigue syndrome.

Having worked with cancer patients for many years, she saw how serious fatigue was and the impact it had on the patients’ quality of life. Some patients even withdrew from a potentially curative treatment saying they were “too tired.”

“The kind of fatigue experienced by individuals with cancer is different from the feeling that you or I have at the end of a busy week,” said Olson. “Interestingly, when you start looking at other populations, such as people with chronic illnesses or shift workers and take a broad view, the descriptions of fatigue are the same. Thus, while the reasons for fatigue may vary, the kinds of adaptations required may not.

Olson, an Alberta Heritage Foundation for Medical Research (AHFMR) Health Scholar, has created new definitions for tiredness, fatigue and exhaustion and argues they represent various points on an energy continuum. The amount of energy a person has influences how easily they can adapt to stress. Individuals who are tired still have a fair bit of energy, so although they may feel forgetful, impatient and experience gradual heaviness or weakness in muscles following work, this is often alleviated by rest.

Fatigue, on the other hand, is characterized by difficulty concentrating, anxiety, a gradual decrease in stamina, difficulty sleeping, increased sensitivity to light and

“The important thing is to try to prevent or at least delay the progression from tiredness to fatigue and then from fatigue to exhaustion.”

– Dr. Karin Olson

the limiting of social activities once viewed as important. Individuals with exhaustion report frank confusion that resembles delirium, emotional numbness, sudden loss of energy, difficulty both in staying awake and in sleeping and complete social withdrawal.

“It is important to recognize the difference between tiredness and fatigue, because fatigue is a marker that the body is not able to keep up,” said Olson. “The onset of the manifestations of fatigue, particularly if these are not normal states for you, should be taken seriously.”

Failing to understand the distinctions between tiredness, fatigue and exhaustion could result in the use of inappropriate interventions that inadvertently promote fatigue and exhaustion. Olson has some evidence that while exercise appears to help those who are tired, it may decrease the ability to adapt in individuals experiencing fatigue and exhaustion. Long-term use of caffeine and other stimulants should also be avoided by people experiencing fatigue and exhaustion, as these substances “fool” the body into thinking it has more energy available than it really does.

“The important thing is to try to prevent or at least delay the progression from tiredness to fatigue and then from fatigue to exhaustion,” said Olson. “We are starting to work on some interventions that we think may be helpful. In the meantime, families and friends can help by recognizing changes consistent with fatigue and exhaustion and look for ways to help minimize stress.”



Supplied

Dr. Karin Olson has created definitions for tiredness, fatigue and exhaustion – all of which affect our health.

This work may also have applications to other population, such as students or individuals with chronic illnesses, who have not been studied to date. “Students tend to stay up late at night, studying hard,” said Olson. “Some studies show that changes in sleep patterns may compromise one’s ability to remember things and to

integrate new information.” “We’re a long way from having all the answers but this study was a start. It has provided us with a great foundation for future research among individuals with cancer and other groups ranging from ‘burned out’ workers to recreational athletes and people with chronic diseases.” ■

New research centre will seek ways to reduce water use in oilsands

Centre to explore efficient, environmentally responsible development

By Ileiren Byles

A new University of Alberta research centre will dig deep to find ways of improving oilsands development, with an eye towards environmental sustainability.

Water use in oilsands development is currently a significant concern for Albertans and Canadians, particularly as the industry grows over the next 20 years. The innovative U of A centre is poised to tackle this issue through a new partnership with Imperial Oil and Alberta Ingenuity.

"I don't think there's any issue on this planet that's going to be more important in the next 20, 30, perhaps even 100 years, as the inextricable link between energy and the environment," said U of A President Indira Samarasekera. "So, as often has been the case in the past, industry and government stand with us in our endeavour."

The Imperial Oil-Alberta Ingenuity Centre for Oil Sands Innovation's mandate is to find more efficient, economically viable, and environmentally responsible ways to develop Canada's oilsands resources, one of the largest crude oil deposits in the world. The centre will be led by scientific director Dr. Murray Gray.

The centre expects to invest more than \$15 million in research over the next five years, and recruit more than 50 faculty, graduate students and researchers. It will encourage interdisciplinary research and apply the emerging tools of nanotechnology to the oilsands.

"The centre is the first of its kind in Canada and its focus is of critical importance to our industry and our country. And it brings with it potentially game-changing technologies," said Randy Broiles, senior vice-president, resources division, Imperial Oil. "At Imperial Oil, we strongly believe that investing in research and innovation is

"I don't think there's any issue on this planet that's going to be more important in the next 20, 30, perhaps even 100 years, as the inextricable link between energy and the environment."

— President Indira Samarasekera

of critical importance to satisfying energy needs, but this path towards successful and environmentally responsible oilsands development is just too important and too urgent for any one company to undertake alone."

In addition to evaluating the use of non-aqueous solvents to separate and extract bitumen from oilsands, research activity this year will also focus on bitumen extraction and upgrading projects. One of the projects involves nanotechnology, where technologies are scaled down to a minute scale by modifying the structure of catalysts. The use of nano-structured materials holds promise to both reduce energy requirements and improve operating efficiencies in bitumen upgrading.

"I congratulate our partners Imperial Oil and Alberta Ingenuity for their generosity and their foresight in the creation of the centre and in sponsoring Dr. Gray. This is a tangible demonstration of our partners' commitment to innovation and confidence in our joint ability to manage Alberta's oilsands resource investment wisely well into the future," said Dr. David Lynch, U of A Dean of Engineering. ■



Dr. Murray Gray is the scientific director of the new Imperial Oil-Alberta Ingenuity Centre for Oil Sands Innovation.

Partnership lays foundation for big success from nanotech

\$4.5 million-donation from Xerox, the Government of Alberta and the National Research Council

By Ileiren Byles

A new partnership will bring as many as 10 new researchers to the National Research Council's National Institute of Nanotechnology (NINT) on campus.

During the next three years Xerox, the government of Alberta and the National Research Council (NRC) are investing \$4.5 million in Canada's first major public-private, materials-based nanotechnology partnership.

"This three-year agreement means we will hire between six and 10 new researchers at NINT, who will investigate materials-based nanotechnologies, including document- and display-related technologies," said Nils Petersen, director general of NINT and co-manager of the new nanotechnology collaboration along with Hadi Mahabadi, vice-president and director of the Xerox Research Centre of Canada (XRCC).

Mahabadi is a believer in the power of science and technology to make life better. "Prosperity in a country is related to the quality of jobs available, and research shows that quality of jobs available is related to investment in science and technology," he said. "Nanotechnology plays an important role in the future, and we believe this partnership makes nanotechnology in Canada that much stronger."

The three partners will invest funds, human resources and available infrastructure to create a research program and teams focused on developing commercially successful, nanotechnology-based discoveries. Personnel from NINT and XRCC will collaborate on research projects at NINT in Edmonton and at XRCC in Mississauga, Ontario.

"This level of public and private sec-



Hadi Mahabadi, and director of the Xerox Research Centre of Canada and NINT director Nils Petersen.

tor partnership helps fuel the type of innovation that will keep Alberta, and Canada as a whole, strong and competitive in an increasingly global, knowledge-based economy," said Doug Horner, Alberta minister for Advanced Education and Technology.

"The investments from the government of Alberta, Xerox and NINT will build a world-class nanotechnology research program that embraces the spirit of innovation, but also that of commer-

cialization."

NINT is a multi-disciplinary institution involving researchers in science, engineering, pharmacy, medicine, business and law.

Established in 2001 and operated as a collaborative project of the NRC, the University of Alberta and the Government of Alberta, it conducts advanced research and fosters innovation in support of a new generation of nanotechnology-based firms. ■

"Prosperity in a country is related to the quality of jobs available, and research shows that quality of jobs available is related to investment in science and technology."

— Hadi Mahabadi

Big picture thinkers

Kaplan researchers affect the community

By Caitlin Crawshaw

You might not know it, but car accidents, product liability and freedom of speech have one critical commonality: each of these falls under the rubric of tort law, an area that has defined the 33-year academic career of University of Alberta law professor Lewis Klar.

“The area of tort is probably the broadest and, in some sense, the most well-known area of private law to everyday people, although they don’t know the term ‘tort,’ ” said Lewis, who has been awarded one of the university’s highest research honours – the J. Gordin Kaplan Award for Excellence in Research – for his work.

Klar explains tort law “essentially deals with the ways we interact with each other and when losses occur, how we are going to deal with them, who’s going to be responsible, and so on and so forth.”

“So when you think of lawyers and you think of suing, you’re really thinking about tort law.”

As a legal researcher, Lewis’ work entails interpreting the law and making recommendations for lawyers, judges and law makers.

“The legal rules which exist to deal with these things don’t exist in a static, fixed state. They’re not easy to formulate, they’re not easy to understand or to apply, and new problems are always appearing which need new solutions,” he said.

“So my research over the last 30-some years has been to try to deal with these disputes, look at them, see how they’re being resolved here and elsewhere, read the judgments which have dealt with them, read the articles which talk about them, and try to articulate how I think these disputes ought to be resolved and how I think Canadian courts do resolve them.”

“I think the impact of our research is enormous in terms of how we live together.”

– Lewis Klar

The award is presented to two U of A researchers annually. It is named for Gordin Kaplan, who served as the university’s first vice-president of research. Kaplan created the University Research Prize in 1982. It was renamed in Kaplan’s honour in 1988. The awards will be presented during a public ceremony March 6 at 3:30 p.m. in the Timms Centre for the Arts.

Klar says he’s honoured to receive the award, especially because legal research is not always given its due.

“The impact of our research is enormous in terms of how we live together. So, to win the award is obviously a thrill for me personally, but also I’m really pleased – and I think all of my colleagues are pleased – that legal research has been recognized in this way.”

Klar shares this honour with U of A cardiologist Dr. Paul Armstrong, whose research on the diagnosis and treatment of acute coronary syndromes and cardiac failure has helped patients the world over.

The director of the Virtual Co-ordinating Centre for Global Collaborative Cardiovascular Research, Armstrong has published more than 400 papers during the course of his career, and earned many accolades for his academic prowess. But he is most gratified by the human impact of his work.



Lewis Klar

“The most meaningful things about my research is that number one, it has a direct application to the care of patients,” he said. “When I go to Grande Prairie or to a smaller city where there’s not a university research environment, if I can talk to the physicians and nurses about the advances in care and why research is important – and change the way that they think, then we can collaborate on the remaining issues, because they have such direct relevance to the care of patients.”

“Seeing patients get better, and seeing patients who have survived who wouldn’t have normally survived, is enormously gratifying. And stimulating young people to pick up the cause and to join, I think, is also very gratifying.”

Armstrong says the Kaplan Award is a “very special” honour.

“It’s been said that for those of us who



Dr. Paul Armstrong

“Seeing patients get better, and seeing patients who have survived who wouldn’t have normally survived, is enormously gratifying.”

– Dr. Paul Armstrong

have the privilege of traveling and lecturing in different countries and different places, you’re never a prophet in your own land. So, to have your own institution honour you is very special.” ■

The 2007 Kaplan recipients will be formally recognized at a ceremony and reception which will be held at 3:30 p.m. March 6 at the Timms Centre for the Arts.

Young scholars recognized for early achievement

Drs. Janet Elliott and Mark Gierl earn Martha Cook Piper researcher prize

By Dawn Ford and Caitlin Crawshaw

The focus of Dr. Janet Elliott’s research is tiny – she works at the level of molecules, examining the chemical reactions that occur when two surfaces meet. But there is nothing small about the impact of her work or the accolades she’s received.

Elliott, a professor and researcher in the Department of Chemical and Materials Engineering, holds the Canada Research Chair in Interfacial Thermodynamics. She was voted one of six “Canadians who define the new frontiers of science” by *Time Magazine* and is a recipient of the Canadian Institute for Advanced Research’s Young Explorers’ Prize.

Now, she’s one of two U of A researchers, along with Dr. Mark Gierl, in the Faculty of Education, being awarded this year’s Martha Cook Piper Research Prize. Named for the former U of A vice-president of research, the award recognizes researchers who show exceptional promise early in their careers.

The awards will be presented during a public ceremony March 6 at 3:30 p.m. in the Timms Centre for the Arts.

Elliott’s research ranges from the very theoretical to applied thermodynamics, such as her work on the cryopreservation of cells and tissues for transplant.

She explains that thermodynamics is defined by “the underlying mathematical relationships that exist between properties, related to entropy and energy.”

These relationships can be judged by the statistical behaviour of molecules – for instance, how likely molecules are to have certain properties or be located at certain positions.

“The statistics of molecules are basically exact, rather than approximate. So,

“I love the discipline, in part, because of the problems and challenges inherent to understanding the psychology of problem solving, but the best part of my job is the people I constantly meet.”

– Dr. Mark Gierl

thermodynamics is very, very powerful, and it arises from some basic physical laws but applies to basically anything.”

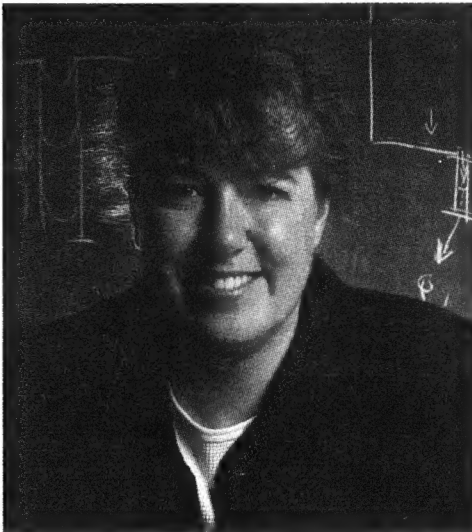
While Elliott has achieved so much in her career, she says the Martha Cook Piper Research Prize is “one of the most meaningful.”

“I know the caliber of my colleagues at the University of Alberta ... To win an award among colleagues, or from your colleagues, is more meaningful than some that are more removed from you.”

Gierl studies learning and assessment – and just years into his career he’s snagged countless recognitions for his expertise.

In the decade since completing his doctoral degree at the University of Illinois, Gierl has earned a Canada Research Chair in Educational Measurement and has become the director of the Department of Educational Psychology’s Centre for Research in Applied Measurement and Evaluation.

His research is focused, in part, on developing methods for identifying and interpreting the content and cognitive factors that produce different results on



Dr. Janet Elliott

exams. In measurement language, this is known as differential item functioning and occurs when particular groups of examinees with the same total test scores differ in their responses to specific test items.

“I have always been interested in the interface between what people are thinking and what we can extract from their responses to test items,” said Gierl, who is concerned with how this information can be used diagnostically.

“In the past, tests have yielded information that has caused students to judge themselves narrowly, telling you what you are bad at instead of how you can improve.”

His work has far-reaching implications including helping the College Board in New York develop a diagnostic component for the SAT, and investigating more generally how cognitive factors affect assessment outcomes. He has also contributed to



Dr. Mark Gierl

new testing initiatives in agencies such as Alberta Education, Castle Rock Research and the American Institute of Certified Public Accountants.

In the past decade, Gierl has achieved the enviable reputation of an emerging young scholar with great talent and outstanding promise as a researcher. He says it is the people he has met along the way who add enrichment and reward to his work.

“I love the discipline, in part, because of the problems and challenges inherent to understanding the psychology of problem solving, but the best part of my job is the people I constantly meet.” ■

The 2007 recipients of the Martha Cook Piper Research Prize will be formally recognized at a ceremony and reception, which will be held at 3:30 p.m. March 6 at the Timms Centre for the Arts.

Study finds teen boys most likely to access pornography

Parents need to be more aware of kids' viewing habits, says researcher

By Bev Betkowski

Boys aged 13 and 14 living in rural areas are the most likely of their age group to access pornography, and parents need to be more aware of how to monitor their children's viewing habits, according to a new study by a U of A graduate student.

A total of 429 students aged 13 and 14 from 17 urban and rural schools across Alberta were surveyed anonymously about if, how and how often they viewed sexually explicit media content on digital or satellite television, video and DVD and the Internet.

Ninety per cent of males and 70 per cent of females reported accessing sexually explicit media content at least once. More than one-third of the boys reported viewing pornographic DVDs or videos "too many times to count," compared to eight per cent of the girls surveyed.

Though being curious about sexually explicit images may seem a natural part of early adolescence, porn is a major presence in the lives of youth, said Sonya Thompson, a master's graduate student. The media environment in Alberta homes makes access to porn easy for teens and viewing pornography at a young age can set children up for problems later on, said Thompson. "We don't know how we are changing sexual behaviours, attitudes, values and beliefs by enabling this kind of exposure and not talking with kids about it in any meaningful way."

Thompson, formerly a sex education teacher, is concerned about the health and social messages pornography sends. "What kinds of expectations will these young people have going into their first sexual relationships? It may be setting up a big disconnect between boys and girls and may be normalizing risky sex practices."

Almost half of rural youths in the survey reported seeing pornographic videos or DVDs at least once, compared to one-third



Sonya Thompson, a graduate student at the U of A, has found that the media environment of Alberta homes makes viewing porn easy for teens. She's concerned this may pave the road for future problems for youth.

of the urban participants. Thompson is unsure why rural teens access porn more on video and DVD, but suggests that parents may think distance acts as a buffer. "Maybe they have a false sense of thinking they are far away from unhealthy influences."

Rural boys also reported a lower incidence of parents talking with them about sexual media content. Urban girls were most likely to have had such discussions with their parents.

And while the majority of teens surveyed said their parents expressed concern about sexual content, that concern hasn't led to discussion or supervision, and few par-

ents are using available technology to block sexual content.

"It indicates there is plenty of room for better parenting around pornography use. Parents need to improve dialogue with their children and their own awareness level. They have to be educated enough to be the ones setting the boundaries in the house," Thompson said. "Families using media together is no longer the norm, so parents need to know what their kids have access to in their alone time."

Other study findings show that the majority of students surveyed, 74 per cent, reported viewing pornography on the

"Families using media together is no longer the norm, so parents need to know what their kids have access to in their alone time."

— Sonya Thompson

Internet. Forty-one per cent saw it on video or DVD and 57 per cent reported seeing it on a specialty TV channel. Nine per cent of the teens reported they accessed pornography because someone over 18 had rented it, six per cent had rented it themselves and 20 per cent viewed it at a friend's house.

The study also revealed different patterns of use between males and females, with boys doing the majority of deliberate viewing, and a significant minority planning social time around viewing porn with male friends. Girls reported more accidental or unwanted exposure online and tend to view porn in same-gender pairs or with mixed groups.

Teachers also need to tackle the issue in sex education classes, she added. "Obviously it's a huge influence on kids and it needs to be talked about. There's a whole subculture we are not addressing."

Retailers, government and the media industry regulators also need to work with parents to ensure they are educated about limiting their children's access to sexually explicit material, have strategies to talk with their teens and that laws around the sale of porn to minors are enforced, Thompson said. ■

Effect of garlic on kids needs further research: study

Dosage, benefits unclear

By Bev Betkowski

Parents and practitioners should know more about garlic before using it to treat children, according to a review of data conducted in part by a pediatrics professor.

After reviewing several studies on the use of garlic for childhood ailments, researchers found using garlic to treat children appears to be generally safe, but more research needs to be done on its specific effects. They also found that garlic is not recommended in at least one treatment.

"Data are insufficient to recommend precise dosages when treating children," said Dr. Sunita Vohra, a U of A pediatrics professor. While garlic has been used in many cultures for its purported pharmacologic benefits, further research will help answer questions surrounding its effects on children, she added.

The data review revealed that garlic tablets did appear to aid upper respiratory tract infections, resulting in a 1.7-fold reduction in morbidity compared with a placebo, and a 2.4-fold reduction compared with dibazole, a commercial parasiticide containing medication. Garlic applied briefly to warts also proved effective, with resolution reported in all children after three to nine weeks of treatment.

A naturopathic eardrop preparation of garlic and three other herbs was as effective as a conventional eardrop when used to treat pain associated with ear infections in children. However, it was unknown how much the garlic itself con-

"Data are insufficient to recommend precise dosages when treating children."

— Dr. Sunita Vohra

tributed to the pain relief.

There were no significant improvements when using garlic to treat cardiovascular disease in youngsters, and more research is needed to explore its effects on blood pressure and lipid concentrations in children at cardiovascular risk.

As with conventional medical treatments, there is potential for adverse effects with garlic use, Vohra said. Unfavorable effects of garlic described in adult and pediatric studies were generally minor, with garlic's pungent smell on both the breath and body being the most commonly reported. The most serious adverse effect was associated with topical use. Three pediatric studies reported second-degree burns when raw, crushed garlic was directly applied to children's skin as an antipyretic or antiviral treatment. Vohra cautions parents against applying garlic directly to the skin as a topical medication. ■



Dr. Sunita Vohra says research on garlic's effects on kids is insufficient.

Taking it all in stride

Ultramarathoner's attitude towards fitness also a life philosophy

By Lisa Ricciotti

How do you eat an elephant? One bite at a time. And that, says Joy Chikinda, is also how you run an ultramarathon.

"You just keep putting one foot in front of the other," said Chikinda, a group fitness coordinator with Campus Recreation. "You break it down into little pieces, so it's not overwhelming. Like any big task, you have to plan it, then do it one section at a time."

She makes it sound so easy. But pause to consider the superhuman effort of going the ultramarathon distance – which is anything beyond the standard marathon length of 42 kilometres, or 26.2 miles. These runners tie up their laces knowing they're about to run 50 or 100 kilometres or even 50 or 100 miles.

To truly comprehend this mind-boggling achievement, draw a circle with a 100-mile radius around Edmonton. At 97.2 miles, you'll hit Red Deer. "Yes, it's like getting up in the morning and saying 'I think I'll run to Red Deer,'" said Chikinda. "And I can do it. It might take me 26 hours straight, but I can do it."

She knows she can, because she's been doing it for 10 years now, with more than 30 ultramarathons under her size six-and-a-half feet. Now 46 years old, this petite runner finds her preferred distance is a 50-mile event. "That's comfortable for me. Well, not comfortable, but it's a distance that challenges without completely wrecking me. A 100-miler is just gruelling. I need a couple of weeks to recover from that."

Chikinda hasn't always been a runner. Growing up, she wasn't even interested in fitness. "I used to be a couch potato. I hated breaking a sweat. My mother was a piano teacher, and my favourite thing was to come home from school, have a bag of chips and a pop, then nap for a couple of hours until she finished her lessons. I wasn't active at all, not until after my second son was born."

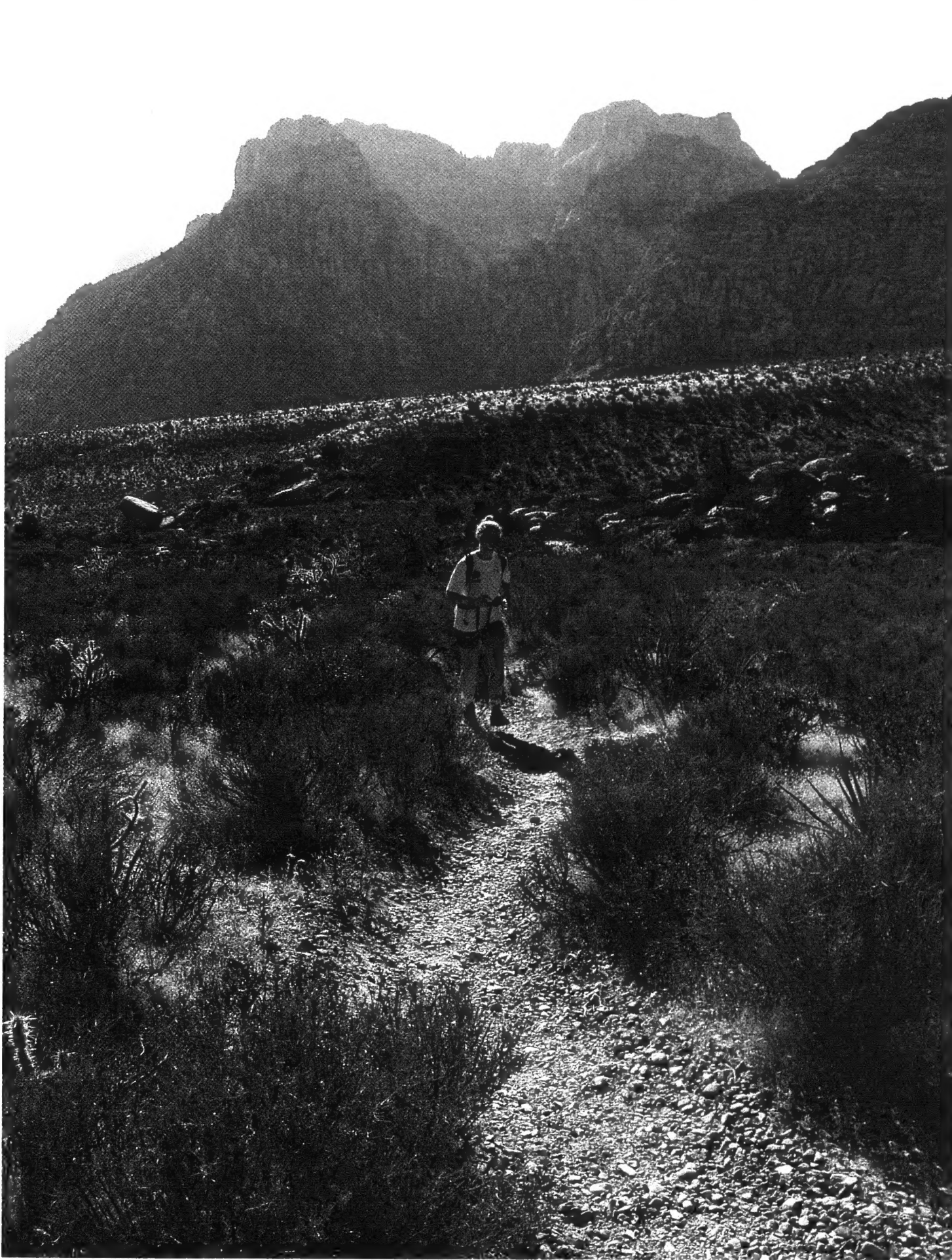
That's when Chikinda found herself carrying "some extra weight, about 30 pounds extra, enough to spur me on." Knowing that a fitness centre was just up the street, Chikinda began taking "mommy breaks," working out while leaving the kids with a sitter. "I discovered fitness at 26, and have pursued it ever since."

Soon Chikinda was working part-time as a fitness instructor, teaching aerobics, step, endurance and cycle classes. Eventually in 1997, after her three kids were in school, the stay-at-home mom took herself back to school at the U of A. First she tried music and the arts, then business, before "shifting gears again when I realized my true passion was physical education." But the running didn't start in earnest until another 30 pounds hit.

This time the extra weight showed up on husband Byron, the aftermath of quitting smoking. "His work buddies encouraged him to start running with them at lunch. At first he thought he was going to hack up a lung, but he continued, and soon he ran his first 10-miler."

That's when Chikinda discovered a new side to her personality. "I never thought I was competitive about fitness until my husband started running. I said: 'Hey, I'm the fitness queen around here! I've got to do that too!'" The clincher was seeing her husband after his first marathon in Las Vegas. "He was all caked in salt. It was really awe-inspiring; he was so serene, almost spiritual. He got so much out of it, pushing his body past the point he thought he could. It sparked me on and I ran my first marathon that same year, in 1995."

The pair has covered a lot of miles together since as running partners. Just two years after her first marathon, Chikinda



Joy Chikinda during a training run at Red Rock Canyon, outside Las Vegas, in July 2006.

began entering ultramarathons with her husband. Currently their goal is to complete their favourite race together this October, the 50-mile Le Grizz in Montana – for the 10th time.

"That will be a huge achievement. It's so hard to finish long events consistently, since anything can happen over that distance. One year I got really bad shin splints just 10 miles in, and had to finish the remaining 40 miles in a lot of pain. I would have dropped out, but I wanted to get another year toward that 10-year anniversary."

Of course the big question remains: if running these outrageous distances is so gruelling, why do it? Chikinda answers without hesitation: "During an ultramarathon, you often think 'Please, please, end my misery!'" But you get a huge feeling of

accomplishment from it. It's such a physical challenge, and we don't get a lot of that in our lives now."

Even more than the "joy and celebration" that physical triumph brings, Chikinda realizes running great distances has also given her a new vision of life.

"[Ultramarathons] teach that you really don't know what you're capable of until you're put to the test," she said. "You might be miserable, but you won't die. And it's not all pain; there are highs and lows. It's like life – a roller coaster, with up and down times. You learn you will come out the other side. Things will get better."

So Chikinda keeps on running, and will continue to as long as she and her husband continue to enjoy it.

"If Byron stops, I probably will too."

"[Ultramarathons] teach that you

really don't know what you're capable

of until you're put to the test."

– Joy Chikinda

We're starting to get a teeny bit of arthritis, so the writing is on the wall. We know we can't do it forever, and we probably won't do 100-milers much longer. But we can still do 50-milers, travel, and meet really interesting people. So that's the plan. You've got to find what you really enjoy – and go for it." ■

Métis medical problems require study

Population more likely to suffer from heart disease, diabetes

By Ileiren Byles

Métis people are an understudied segment of Canada's population, according to Lois Edge.

The senior research officer with the Métis Centre of the National Aboriginal Health Organization (NAHO) and a doctoral candidate in the University of Alberta Indigenous Peoples Education program, Edge says only four per cent of the Métis population is older than 65, and medical science should find out why.

"More than half the Métis population is under 29 years of age and there is a marked decrease in the population when people reach their 50s," she told a group of U of A medical students Monday, as part of the Aboriginal Health lecture series. "A lot of people are passing away in their 50s from heart disease, so I'm advocating for Métis-specific heart-related research."

In fact, Métis people face a lot of health challenges compared to the general population, said Edge. One in five Métis people report arthritis and rheumatism, compared to one in 10 in the general population. One in five Métis adults report heart problems and six per cent report diabetes, in comparison to two per cent in the general population.

"Twelve to 14 per cent of Métis women report chronic illnesses such as arthritis, asthma and stomach problems," she said. "As far as I know, there is no Métis-specific research going on, but the statistics obviously suggest that there is a need for it, certainly to do with heart health."

Edge would like to see more than that, however.

"There should be Métis-specific content in courses at the university. I would go so far as to say that all university students should be required to take a course about the history of aboriginal, Métis and Inuit

"Twelve to 14 per cent of Métis women report chronic illnesses such as arthritis, asthma and stomach problems. As far as I know, there is no Métis-specific research going on, but the statistics obviously suggest that there is a need for it, certainly to do with heart health."

— Lois Edge

peoples in Canada," she said. "That would be a really good beginning."

An area that is receiving a bit more attention, thanks to Edge's work with NAHO, is getting the Métis community involved in setting priorities with the Métis Perspectives and Traditional Health Knowledge series of publications. Each of the five booklets profiles Métis elders and takes a look into the facets of Metis culture and tradition which, combined, establish a holistic view of well-being.

"Métis health lies in our culture, our identity, our traditional knowledge, our history and experiences. Our health and wellness are dependent upon the health of the land and the water and our relationship to our environment," said Edge.

This is why it's so important for Métis people to be committed to celebrating that culture, said Edge.

"You have an ethical responsibility to maintain your identity and position as an aboriginal person, to keep that balance." ■



Geoff McMaster

Rare Performance Geisha dancers from the Nishikawa School of Dance performed traditional and contemporary interpretations of classical Japanese Dance at the Timms Centre for the Arts this week. They also conducted a workshop on traditional dance technique and culture.

Enterprise Square *update*



Supplied

An artist's rendering of Enterprise Square.

Operations update

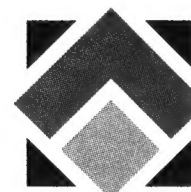
By Folio Staff

The university's downtown presence continues its evolution from the former Bay Building into the dynamic Enterprise Square. With tenants including the Faculty of Extension, the School of Business Executive Education and Family Business Institute, and even a U of A bookstore, to name just a few, Enterprise Square promises to be a vibrant hub of activity in the heart of downtown.

Here are a few updates on the project:

- The internal space – the atrium – of Enterprise Square will become an urban 'quad' and will be the centre of the U of A's Enterprise Square.
- Senior management has approved of an executive management position to oversee all operations of Enterprise Square.
- A postal code has been set for the building: T5J 4P6.
- Enterprise Square will use the university's '492' exchange, and staff will keep their current phone numbers.
- A workshop was held January 12, 2007 for representatives of the campus units moving downtown to address questions from their respective staffs. Most questions involved parking, security and information technology services.
- University leaders have confirmed that employees moving downtown who now park on the north campus may continue to use their current space after the move.
- A new Enterprise Square website will debut in March. The site will include an interactive parking map, indicating parking options around Enterprise Square, the cost, hours of operation and relevant contact information.
- The first Enterprise Square brown bag lunch session was held Feb. 27 on the topic of downtown amenities. For more information on downtown services and activities please go to the Edmonton Downtown Business Association website at www.edmontondowntown.com/. The second brown bag session will be held at the end of March, and will feature Edmonton Transit System presenters.

University employees wanting to know who their unit contact is or have other questions related to the move to Enterprise Square, e-mail downtown@ualberta.ca. ■






Enterprise Square

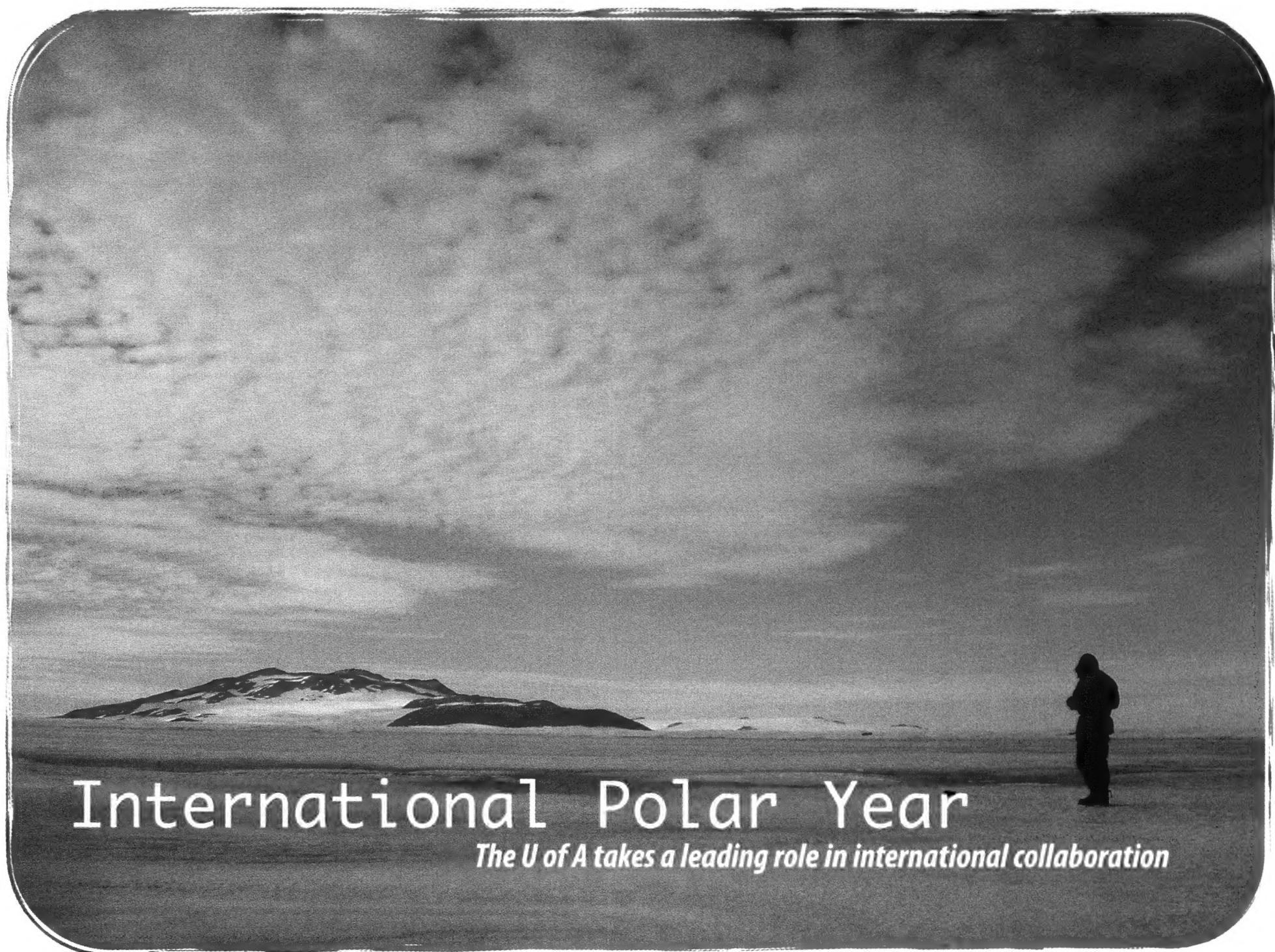
University of Alberta

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We now have a range of exciting video and audio content on the web, and it's growing all the time.

Just click on "multimedia and RSS" on the U of A home page for:

-  Video features on a range of subjects
-  Our *Friday Review* weekly news podcast
-  Recordings of *Philosophers' Cafés*



International Polar Year

The U of A takes a leading role in international collaboration

Research goes global as International Polar Year begins

Scientists going to the ends of the Earth during IPY

By Richard Cairney

Dr. David Hik has a photo of himself taken two years ago in the remote Norwegian archipelago of Svalbard, with a rifle slung over his shoulder, holding a Blackberry to his ear. Hik was keeping an eye out for wandering polar bears while one of his graduate students, Terra Birkigt, was measuring vegetation. Hik had taken a phone call from officials in Ottawa to discuss the Canadian International Polar Year program.

The photo is emblematic of Hik's dual role as Canada's point man on IPY and a northern researcher (see story page 11). Hik holds the office of the Canadian IPY Secretariat – a hub of information for the country's IPY initiatives. On top of teaching and running his own research programs, Hik is very much the public face of our country, which has contributed more research funding to IPY projects – \$150 million – than any other nation.

IPY is a two-year global initiative involving 60 countries, some 50,000 researchers, more than 170 research projects and about \$1.5 billion in funding to research the polar regions.

Three years ago it became clear that Canada needed someone outside of government to co-ordinate IPY activities. Hik was on sabbatical, working with a parliamentary committee on northern research. University of Alberta Vice-President (Research) Dr. Gary Kachanoski, while attending meetings in Ottawa, played a pivotal role in establishing the Secretariat's office on campus, says Hik.

Considering the U of A's history, culture and values, Kachanoski says it made perfect sense to have the Canadian IPY



Dr. David Hik, seen here in Norway, gets a critical phone call from Ottawa officials wanting to discuss the Canadian International Polar Year Program

Secretariat located here.

"If there was going to be an institute that would take the Canadian lead on this it should be us, given the long history the university has in northern research and northern issues and the (U of A-based)

Canadian Circumpolar Institute and the strong relations we have in the North," he said.

IPY, he adds, will ensure polar science gets "the kind of attention it might not get in general requests for resources."

"I have a box of studies documenting how little attention we in Canada have paid to the North. IPY gives us an opportunity to talk about what is happening in the polar regions."

– Dr. David Hik

Hik says his office is "the matchmaker" of IPY. "All the flow of information, from across Canada and internationally, comes through here. We facilitate communications."

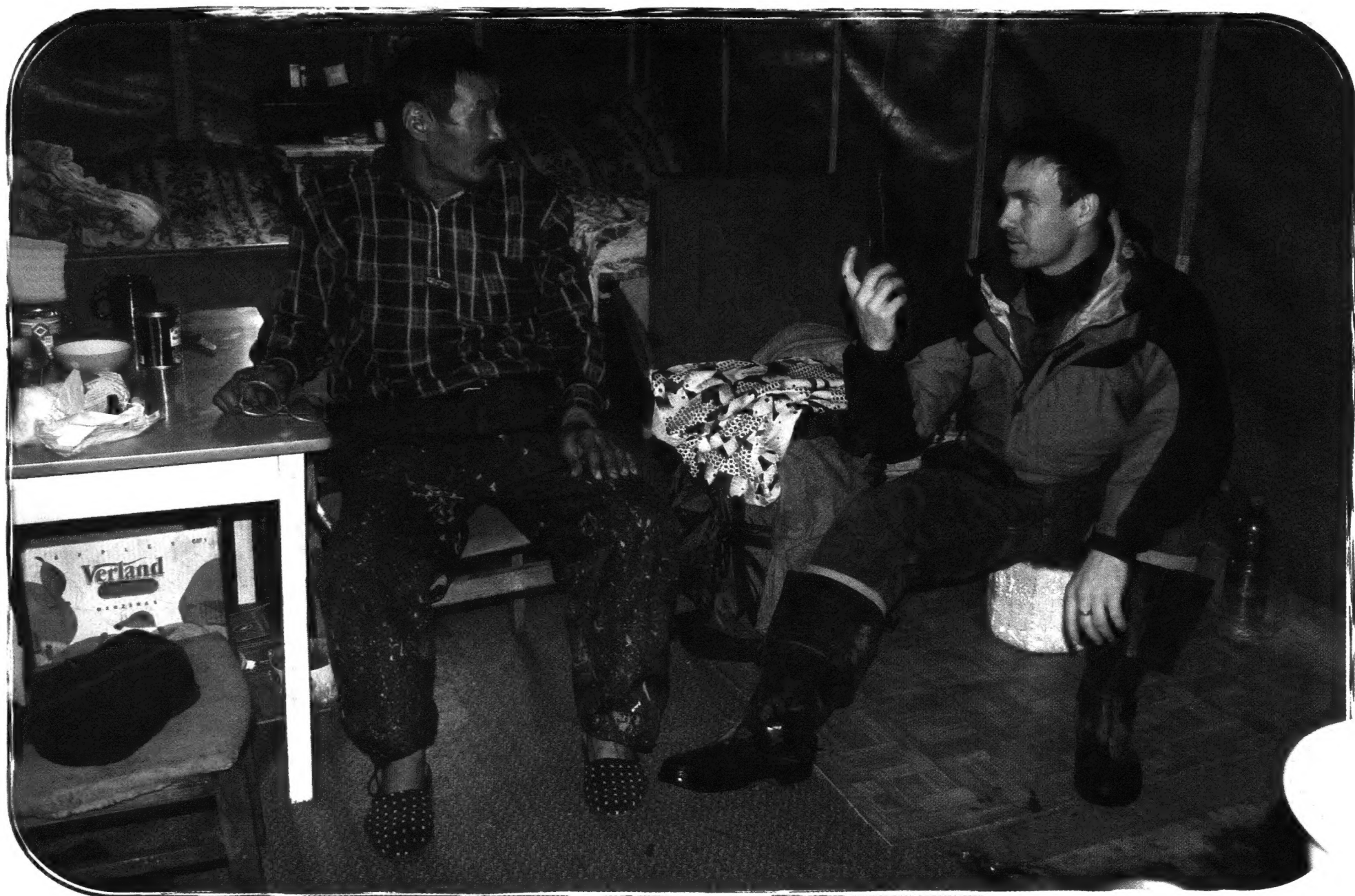
The office is also responsible for outreach. Its Youth Canadian Steering Committee is involved with the national science fairs. Because of its outreach work, every Canadian school will provide its students with a special section of curriculum on polar regions (see story on page XM).

Canada alone has hundreds of northern research projects that fall under the umbrella of IPY. It's a big change from previous years, when funding for Arctic research was difficult to come by.

"I have a box of studies documenting how little attention we in Canada have paid to the North," Hik said. "IPY gives us an opportunity to talk about what is happening in the polar regions."

Canada certainly has plenty to study. The federal government's \$150 million in funding will examine two major areas:

Continued on page 10 ►



Killam Postdoctoral Scholar Niobe Thompson interviews an unemployed reindeer herder in northern Russia while researching the environmental impact of natural gas development. Thompson is now researching the planned depopulation of Russia's north.

Russia's northern population problem

How do you convince 600,000 people to move?

By Richard Cairney

When the former Soviet Union collapsed, the country's most remote communities proved to be financially unsustainable. Support to the communities stopped. Hundreds of thousands of northern residents were politically and economically abandoned. Those who could afford to, fled.

"In 1999 and 2000, people were selling their flats for the price of a one-way ticket to Moscow," said Niobe Thompson, a Killam Postdoctoral Scholar studying Russia's planned northern depopulation schemes. "People were leaving with their suitcases, leaving everything behind and starting over with nothing, if they had no family or social networks."

At the time, Thompson was in Chukotka, Russia, conducting research for his PhD, and had a front-row seat to the enormous social and economic

changes taking place as an empire lay in ruins. From the rubble emerged Roman Abramovich. Regarded as the wealthiest person in the world, Abramovich was elected as governor of Chukotka and financed an "assisted migration" program that saw the industrialist spend nearly \$2 billion building new homes and moving them to cities in central Russia.

Abramovich's approach was fairly successful, Thompson points out, because entire communities were moved together, "like moving Sherwood Park to the outskirts of Toronto."

But that was only the tip of the iceberg. The old Soviet Union established large populations of industrial workers in the High Arctic and is only now getting around to dealing with their economic ruin.

"It's as if we had 20 Fort McMurrays

scattered along the northern coastline of Canada, and then the economy falls apart. What do you do?"

With the support of the World Bank, Russia is planning to relocate another 600,000 people, more than half its northern population.

And Thompson is launching a new research project to examine the human aspect of the planned depopulation.

"The problem, as I saw it, is that these plans were drawn upon economic and demographic research but there is no anthropology or sociological research to point out the possibility of resistance to these plans, or to find the most effective ways to move these people."

"If you scoop people up from the North and drop them into large Russian cities . . . you're going to have a huge social problem on your hands. The human

consequences of doing this badly could be tragic."

In recent years, some communities have voiced objections to the idea of forced migration. Thompson believes the relocation plans "are built on a false sense of optimism that everybody is ready to leave."

And indigenous populations, Thompson points out, will be left without doctors, pilots or services they've become accustomed to. Their needs must also be considered, he says.

Thompson's supervisor, Dr. Mark Nuttall, the U of A's Henry Marshall Tory Professor, secured a \$140,000 grant from the Social Sciences and Humanities Research Council to fund the research. Thompson's project is part of an International Polar Year initiative with five international partners who are studying forced population movements in northern regions. ■

► Continued from page 9

International Polar Year begins

climate change impacts and how we adapt to them; and health and well-being in northern communities.

Climate change is the most obvious challenge. "Estimates are that in 30 years, year-round Arctic sea ice will largely be gone," said Hik. "This affects everything. Polar bears, seals, people, and of course sovereignty and security issues. As soon as it is ice free, we can be sure that not only polar nations will be interested in those waters. China has a huge IPY program.

Their ice breaker is going around the world and they are setting up a new permanent research station in the Antarctic.

Obviously they are interested in the science but they are interested geopolitically as well."

So is Canada.

In establishing the new northern territory of Nunavut, the Canadian government agreed to ensure its indigenous northern people would be able to practice their traditional ways of life "in perpetuity."

Given increasing rates of development and equally dramatic changes in climate, "you wonder how that will be possible," said Hik.

"Who could have dreamed 15 years ago that the Northwest Territories would

be the third-largest producer of diamonds in the world?" he asked, pointing out the rapid and often unpredictable changes taking place in the North.

And while a global temperature increase of three or four degrees might not make much of a difference in, say, Brazil, or even the Antarctic, it will radically alter the northern landscape by drawing temperatures above the freezing mark.

"The incremental warming we will see in the next decades will result in changes that will affect everything – wildlife, vegetation, the people who live and work there." ■

IPY Facts

- The first polar year was staged in 1882. Subsequent polar years have been held in 1932-33 and 1957-58, as part of International Geophysical Year.
- Fifty-seven countries have signed an international agreement waiving claims to the continent of Antarctica, preserving it as a site for peaceful international scientific research.
- Sixty countries and more than 50,000 researchers are now participating in IPY, investing about \$1.5 billion in polar region research.

Research goes global as International Polar Year begins

Dr. David Hik's research reveals alarming trends in the southwest Yukon

By Mark Wells

Most of us would welcome summers and winters that are three degrees warmer than we're accustomed to. We'd start our gardens barbecues earlier each year and our shovelling later. Our tans would last an extra week of the year. Life would be great.

But if the average temperature climbed eight degrees, your thermometer would rarely dip below 19 degrees Celsius in July and August, and would regularly break 30 degrees. Through December and January, temperatures just two degrees below freezing would be common.

That's the magnitude of climate change in the southwest Yukon Territory where Dr. David Hik is studying the effects of "climate forcing" – the scientific term for human-"forced" climate change. He's working with an interdisciplinary team of biologists, geomorphologists and glaciologists for the 2007-2008 International Polar Year.

The idea is to get a "wide lens" picture of what is happening by combining disciplines, in the hopes of developing new opportunities for investigation and discovery. It's an exceptional approach, but it fits, because the Yukon has become an exceptional place.

"[Southwest Yukon] is one of three areas on the planet that's warming more rapidly than anywhere else on earth. Winters in the past decade have been somewhere in the range of five to eight degrees warmer than at any time in the last 30 years," said Hik, also the executive director for Canada's International Polar Year Secretariat. "It means effectively we have very little snow cover during the winter. You get this counter intuitive effect of little snow until the late spring and early summer. The plants and animals in this area like it cold and predictable and it is anything but anymore."

"[Southwest Yukon] is one of three areas on the planet that's warming more rapidly than anywhere else on earth.

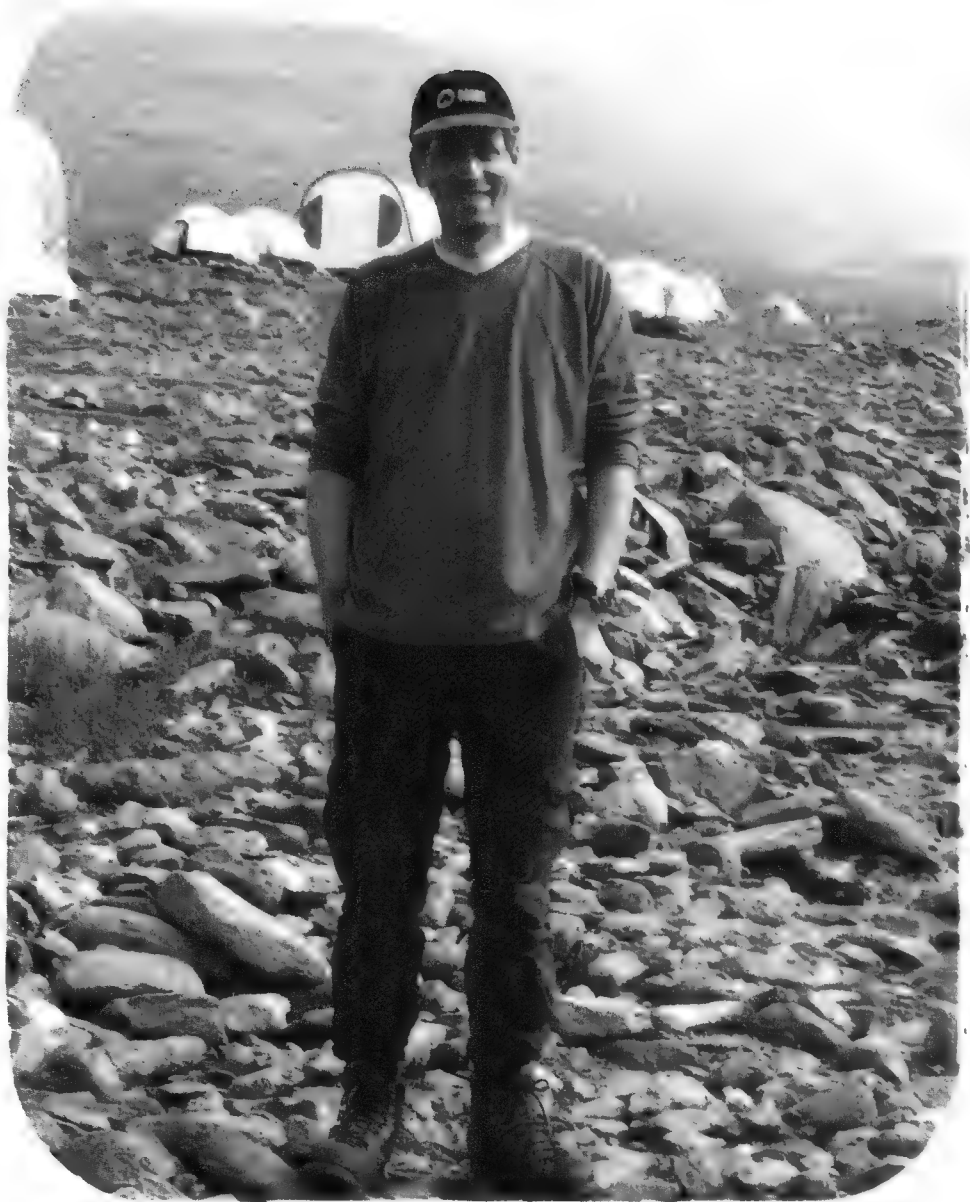
Winters in the past decade have been somewhere in the range of five to eight degrees warmer than at any time in the last 30 years."

– Dr. David Hik

The radical temperature changes are causing treelines and shrublines to advance higher up mountainsides disrupting habitat, while longer stretches of warm weather cause pests to migrate north, further disrupting previously stable ecosystems, while glaciers are melting faster than ever.

"For many years the focal animal we've been studying is the collared pika – a small, high-altitude mammal related to the hare. With the winter warming and absence of snowfall, their populations have crashed," Hik explained. Worse, according to the research of one his students, they aren't expected to recover. "These are sentinel species, the canary on the mountain, so to speak."

Humans aren't immune to the consequences of these temperature changes either. For many in the Yukon, backcountry guiding is a staple economic activity. With surging pest populations eliminating vast tree stands and wildlife moving on to other areas in search of habitat, this business can take a serious hit. Similarly, natural resource extraction typically depends on frozen ground to move heavy



Supplied

Dr. David Hik at his camp site during a recent trip to the southwest Yukon.

equipment over. When the ground thaws, these operations have to be put on hold or cease altogether.

"The advantage we have is that there has been continuous research activity in these areas since the early 1960s," Hik said. "We probably have one of the best long-term records. The background of information that's available for us to understand the consequences of these changes and to better make predictions

about what the future may hold... this is one of the best places – in the Canadian North – to do this."

The International Polar Year last took place in 1957-1958. The international research collaboration promises to bring \$1.5 billion in funding to 50,000 researchers from 60 different countries.

Canada has committed \$150 million, making it the largest single contributor of new funding to the IPY. ■

Prying the truth from the poles

Martin Sharp asks tough questions about what's happening in polar regions

By Mark Wells

You couldn't call Dr. Martin Sharp a climate change skeptic. But then, you couldn't call him a catastrophe-peddling fear-monger either. He's the kind of person that frustrates politicians and journalists: a reasonable, but always inquiring scientist.

Asked how there can be any doubt that man-made global warming is causing the phenomenal loss of polar ice observed in recent years, Sharp, a glaciologist, counters archly with another question: "Isn't it interesting that all these things started happening as soon as we developed the ability to detect them?"

It's a question Sharp, the chair of the Department of Earth and Atmospheric Sciences, is taking seriously in an International Polar Year research project. He's trying to determine how quickly we are losing Arctic ice, whether it will come back, and how much of the loss can be attributed to global warming as opposed to natural cycles.

Sharp says some new data shows dramatic losses of Arctic ice can reverse in a short time period. By studying the dynamics that determine how 35-km-long Canadian glaciers advance and retreat, he hopes he and his team will be able to describe with some authority how endangered the 500-km-long glaciers in Greenland really are.

It's an especially relevant question given that the models used to make predictions of ice loss and rises in sea levels in two of the most politically influential scientific documents in recent memory — the 2007 International Panel on Climate Change report, and the latest Arctic Climate Impact assessment — are by his estimation "pretty

"As a scientist you know there is always uncertainty. But if you start saying that in public, you can undermine the credibility of the message you want to send."

– Dr. Martin Sharp

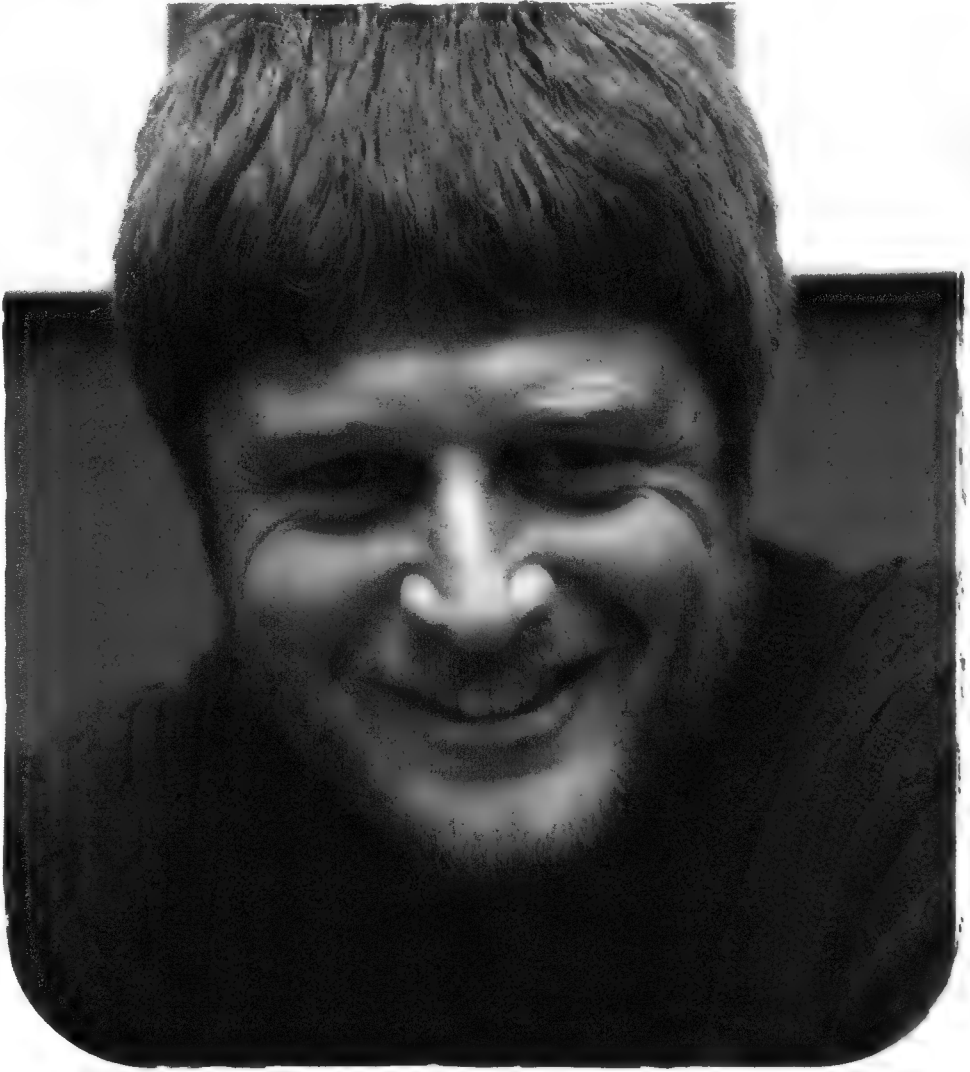
seriously deficient."

"I don't disagree with (the need for action), but on the other hand, there is a risk they're overstating the consequences of the problem," Sharp said.

"As a scientist you know there is always uncertainty. But if you start saying that in public, you can undermine the credibility of the message you want to send."

Another international effort is leveraging the expertise of his team of post-doctoral fellows and students to change that. In this project, airplane-mounted laser altimetry, GPS and other land-based measurements are being used to calibrate satellite radar measurements of polar ice. Should the project succeed, scientists will for the first time in history be able to see the true distribution and volume of polar ice on a global scale.

Sharp hopes his research, when combined with these improved measurements, will help scientists say with greater certainty and credibility whether phenomenon like the massive acceleration of ice breaking off of Greenland and other Arctic areas into the ocean is a "five- or 10-year blip," or, "a 100-



Mark Wells

Dr. Martin Sharp is conducting research for the International Polar Year on how quickly we're losing Arctic ice, whether it will come back and to what extent global warming is to blame.

year trend."

Knowing the answers to such questions could help governments determine if the residents of low-lying coastal cities like Miami and Charlottetown can take a second

mortgage on their home or whether they should begin packing their bags and heading for higher ground as some scientists have suggested — important questions for the coming millennium. ■

Treading on thin ice

The loss of sea ice makes the polar bear's survival uncertain, but a U of A biologist is working to protect Canada's iconic predator

By Caitlin Crawshaw

It's a very Canadian image – a polar bear on the edge of an ice flow, ready to seize a seal from icy waters.

The majestic bear's image can be found everywhere, from the T-shirts of tourists to the stuffed-animal collections of children. And while polar bears are one of Canada's most charismatic species, their future is in question, says University of Alberta biologist Dr. Andrew Derocher.

Derocher has studied the bears for almost a quarter century. His work is wide-ranging, and has included examining the ecology, conservation and management of large Arctic mammals – particularly the polar bear. He also studies the effects of climate change and toxic chemicals on the bears. Several of his recent projects have been funded through International Polar Year (IPY), which he calls "an important program in the Canadian Arctic."

Polar bears are particularly sensitive to the effects of climate change. Grizzly bears, for instance, have a varied diet and they occupy a wide habitat range, from the northern Mexico to northern Canada. This allows them to adapt, to a certain extent, to a changing environment. Polar bears on the other hand, are not so adaptable.

"The habitat of the polar bear is really the sea ice, and the sea ice already has been affected by warming climate. You can see that very clearly. The long-term trend is indicating major changes in ice over the coming years, and this is from the International Panel on Climate Change," said Derocher.

With the sea ice disappearing, polar bears are losing their habitat.

"So the concern is – and this is true for any species – if you take away their habit, you typically lose the species," he said.

As well, the bears are a very specialized species in the sense that they've specialized in hunting seals, using the sea ice as a platform from which to hunt and travel over. While capable swimmers, polar bears prefer to be out of the water and they do their best hunting on solid ground. "They have to use the ice surface as a way to get hold of seals and consume them."

Right now, Derocher's research team mainly works in the Northwest Territories, Nunavut and western Manitoba on a variety



Dr. Andrew Derocher

Biologist Dr. Andrew Derocher examines a sedated polar bear during northern field work. Derocher studies how climate change is affecting the species, whose habitat, polar sea ice, is disappearing due to global warming.

of projects, with a variety of research partners, including Environment Canada, Parks Canada, Manitoba Conservation and others.

These projects include a five-year study of the effects of oil and gas development on grizzlies living in the region for the proposed Mackenzie Valley pipeline.

"We're trying to get some baseline information on the population distribution, their abundance and their habitat use, as a means of facilitating or understanding the ecology of the species from a scientific perspective, but also as an aid to management in that area," said Derocher.

One of his newest studies, partially funded by IPY, will involve placing up to tracking devices on as many as 25 polar bears in the Beaufort Sea region.

"We'll be looking at the movement patterns of both adult females and juveniles in that population relative to habitat and climate change issues," he said.

It's challenging work, Derocher admits. The conservation challenges of all of the species he studies, including polar bears, have increased over time. But there is nothing Derocher would rather do. After all, "the species is fascinating, and that component hasn't changed over the years. We are still finding out new questions."

And the North itself continues to captivate Derocher.

"It's a magical landscape, it's probably the true wilderness in the Canadian context...it's a place where you can truly be a long ways away from anyone else. And

"The habitat of the polar bear is really the sea ice, and the sea ice already has been affected by warming climate. You can see that very clearly."

–Dr. Andrew Derocher

there's some pretty amazing species that live in this part of the world. I don't think I'd have a problem spending another 30 years working on polar bears or any of the other Arctic northern species there." ■

Students making connections

Grad students catch the IPY bug

By Zoltan Varadi

International Polar Year (IPY) is building bridges among youth in education and research.

Two U of A graduate students, Isabelle Turcotte and Graeme Andrews, are involved in the communications portfolio of the IPY Canadian Youth Steering Committee.

Turcotte, who is pursuing her master's degree in renewable resources, is studying oil sands reclamation areas in the Fort McMurray area. She says she's "instinctively" drawn to the North.

"I'm not a southern person. I've been to Miami and Venezuela, and after a week I had enough. It's too warm for me," she said.

It's probably a good climactic disposition for someone whose field of study is in the North.

Andrews, CYSC webmaster, is a U of A political science graduate student examining sovereignty issues pertaining to the Northwest Passage.

Working with the IPY youth steering committee, the pair will be involved in several initiatives.

One will see students develop a short series of videos about IPY research programs. The videos will be broadcast on the Weather Network. They will also be

involved in preparing a series of lessons for Canadian students at the grade-school level, so they can participate in polar year activities, and they will be recruiting "high school ambassadors," particularly from Canada's North. The high school students will record their perspectives about the Arctic is photographs, essays, and through surveys, which will then be housed in a time capsule.

"We have a potential partnership with a museum in Yukon to have the physical time capsule 'buried' there as an exhibition," said Turcotte. "The purpose will be for it to be viewed by the youth in 50 years to see what is going on now."

What's more, every Canadian student will have a segment on polar research added to their school curricula during the next two years. The committee is working with nearly 400 Canadian schools to set up IPY ambassadorships across the country. The committee is also working with the Youth Science Foundation, which co-ordinates grade-school science fairs across the country, to raise awareness of IPY and polar research.

Running March 2007 - March 2009 to accommodate field seasons at both poles, IPY is a global initiative of researchers and scientists from over 60 countries participat-

ing in 200-plus projects encompassing topics from the environment to social issues at both the Arctic and Antarctic.

The scope of the research projects is impressive by any standards, but perhaps more so to students, who are more deeply involved in national and international projects.

"The findings that are going to come out of IPY are going to be gigantic compared to whatever projects people may have now, for which they aren't collaborating on internationally," Turcotte said. "And that's the main advantage of the IPY – to be able to link everybody. That's the purpose of the IPY, to have this kind of sharing platform for all the researchers to work together."

And just as collaboration and knowledge sharing are key components of the IPY, the same holds for CYSC.

"The grad students that we have working for us... we all cross over between different groups," said Andrews. "In terms of the interdisciplinary nature, we've been able to get a lot of input from a lot of different disciplines, and that has helped out immensely in coming up with some unique ideas with what the Canadian Youth Steering Committee can do."

As far as her own experience with the

youth committee goes, Turcotte says her exposure to the work and ideas of others has been one of the most beneficial results.

"We have bi-weekly meetings. We have people in B.C., Alberta, Northwest Territories, Quebec, everywhere. And that kind of networking has given me the opportunity to learn about what other people do."

Moreover, Turcotte says that promoting the youth projects in northern high schools has helped her develop a stronger understanding of the issues and culture of the Arctic.

"Talking to these people has made me learn a lot more about what's going on up North. And that's one of the main things about the IPY – before, a lot of the social aspects were not involved as much, I believe."

Andrews concurs: "The people dimensions: that's something that's been a focal point of this polar year. There are people in the North that live and work there and have been there for quite some time, and it's not enough just to do the work of a researcher – go to your site, do your research, leave and present your work to the scientific community. There's been a real focus in involving community members." ■

talks & events

Folio Talks and Events listings do not accept submissions via fax, mail, e-mail or phone. Please enter events you'd like to appear in Folio and on ExpressNews at: <http://www.uofaweb.ualberta.ca/events/submit.cfm>. A more comprehensive list of events is available online at www.events.ualberta.ca. Deadline: 12 noon one week prior to publication. Entries will be edited for style and length.

UNTIL MAR 31 2007

Bronze Medallion/Bronze Cross Course (includes CPR-C) The Bronze Awards Bronze Medallion opens the door to the world of aquatic leadership including lifeguarding and teaching. Prerequisite: Bronze Star or age 13 by the end of the course. Bronze Cross is the prerequisite for training as lifeguards and Lifesaving Instructors. Participants learn the differences between lifeguarding and lifesaving, the principles of emergency procedures and teamwork. Prerequisite: Bronze Medallion. 1 - 4 p.m. West Pool Bleachers West Pool <http://www.activityreg.ualberta.ca>

UNTIL APR 1 2007

Adult and Children's Learn-to-swim Lessons Swimming and Lifesaving Programs from the Lifesaving Society - Canada's Lifeguarding Experts. The Lifesaving Society programs provide a complete swimming and lifesaving program for learners of all ages. Participants can enter programs designed for their age and skill level to learn basic swimming and self rescue skills or add to their existing swimming skills. 9 a.m. - 12 noon East Pool East Pool <http://www.activityreg.ualberta.ca>

UNTIL APR 11 2007

Shallow Water Aquasize Mondays/Wednesdays 9 a.m. - 9:55 p.m. East Pool East Pool <http://www.activityreg.ualberta.ca>

Shallow Water Aquasize Mondays/Wednesdays 12 - 12:45 p.m. East Pool East Pool <http://www.activityreg.ualberta.ca>

UNTIL APR 12 2007

Deep Water Aquasize 6:45 a.m. - 7:30 a.m. West Pool West Pool <http://www.activityreg.ualberta.ca>

UNTIL APR 17 2007

Graduate Student Support & Strategy Group (GS3G) Offers grad students a comfortable and supportive environment to: discuss concerns/challenges/experiences related to being a grad student; develop effective problem-solving and coping strategies related to these areas; share and hear about other student experiences. Individuals are required to meet briefly with the facilitator prior to attending. If you wish to RSVP online and choose to leave your phone number and/or e-mail address, we will contact you to schedule an appointment with the facilitator for a pre-screening appointment. If you choose to RSVP online with only your name, please contact Student Counselling Services to book an appointment. Register By: Ongoing 2:30 - 4 p.m. 2-600 Students' Union Building (SUB) <http://www.uofaweb.ualberta.ca/counselling/gsg3g.cfm>

MAR 2 2007

Aquaculture, disease, and conservation: Lessons from the Broughton Archipelago Marty Krkosek, U of A Department of Biological Sciences is presenting a seminar on "Aquaculture, disease, and conservation: Lessons from the Broughton Archipelago." 12 noon M-149 Biological Sciences <http://www.biology.ualberta.ca/courses/biol631/index.php?Page=326>

SNF2L-mediated control of cell number in the developing brain David Picketts, senior scientist, Ottawa Health Research Institute, Molecular Medicine Program, is presenting a seminar on "SNF2L-mediated control of cell number in the developing brain." 3:30 p.m. M- 149, Biological Sciences Building <http://www.biology.ualberta.ca/courses/genet605/index.php?Page=399>

A Night At The Opera! Augustana singers present their third annual evening of opera favorites. Students from the vocal performance degree program at the Augustana campus will present popular arias in costume and theatrically staged. The presentation will include arias from Carmen, Manon, Don Giovanni, Norma, and Lakme. Come enjoy the timeless themes of love sought, won, lost, and all the entanglements of romance! Tickets: \$5 (adults); \$3 (students/seniors) - available only at the door. 8 p.m. Faith & Life Chapel Faith and Life Centre

Personal Experience as a Research Tool: Methodological Issues of Autoethnography and Performance Ethnography Second presentation in our Special Speaker Series featuring Dr. Pirkko Markula. Abstract Since the 'narrative turn' in the early 1980s there has been an impressive growth of personal narrative writing in the social sciences, arts, humanities and education. One of the most commonly used terms to describe such self-reflexive research is autoethnography. Markula will examine the multiple meanings attached to

this term to consider the practical implications of engaging with such a research project. 3 p.m. E-121 Physical Education and Recreation Centre, Van Vliet www.physedandrec.ualberta.ca

Visiting Artist String Masterclass Visiting Artist Felipe Avellar de Aquino (University of Paraiba, Brazil) String Masterclass 3:30 p.m. Studio 27, Fine Arts Centre <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

University of Alberta Concert Choir Annual Dinner, Concert and Silent Auction University of Alberta Concert Choir Annual Dinner, Concert and Silent Auction Debra Cairns, conductor. 6 p.m. <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 3 2007

Rosabel Choi, Piano - in Concert Rosabel Choi is an award-winning international performer. Tickets: \$12 (adults); \$8 (students/seniors); \$30 (family) - available at the door. The public is welcome - there is no charge for admission. 8 p.m. Faith & Life Chapel Faith and Life Centre, Augustana Campus

Vienna Piano Trio The award winning Austrian ensemble, praised as one of the finest chamber groups on the international circuit, will perform works by Beethoven, Schoenberg, and Schubert. The concert is presented with the generous support of the Wirth Institute for Austrian and Central European Studies, University of Alberta. 8 p.m. Convocation Hall .

MAR 4 2007

Rosabel Choi, Piano Masterclass Rosabel Choi, Piano, award-winning international performer, will present a piano masterclass. Participants are piano majors enrolled in Augustana's Bachelor of Music program. The public is welcome - there is no charge for admission. 1 - 3:30 p.m. Faith & Life Chapel Faith and Life Centre, Augustana Campus

Visiting Artist Recital Visiting Artist Recital Felipe Avellar de Aquino, cello Program will include works by Marx, Bridge, Locatelli, Britten, Liduino Pitombeira 3 p.m. Studio 27, Fine Arts Building <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

University of Alberta Academy Strings Tanya Prochazka, conductor. String Quartet Opus 131: Beethoven (arranged for string orchestra by Colin Davis) Concerto for Marimba: Rosauro Soloist: Steven Stone Winner, Academy Strings Concerto Competition String Serenade: Wolf-Ferrari. 8 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 5 2007

Mental Health and the Deaf and Hard of Hearing Populations Dr. Cathy Chovaz McKinnon will describe the serious mental health issues facing members of the Deaf and hard of hearing population and the current lack of services across Canada to meet this critical need. She will describe the development of the Mental Health Services for the Deaf (MHSD) within the Specialized Services of a tertiary level care hospital. The MHSD is the first program in Canada dedicated to providing comprehensive mental health care to this marginalized population. As the MHSD approaches the end of its first year, Chovaz McKinnon will describe outcome measures as well as recommendations for the future. 7 - 9 p.m. 2- 115 Education North Aberhart Centre

Salute to the Swing Bands of the 1930s and 1940s Music of the great swing bands of the 1930s and 1940s performed by Jazz Bands I, II, and III of the UofA/GMC combined jazz band program. A journey into the history of swing music. 8 - 10 p.m. Convocation Hall

Centennial Centre for Interdisciplinary Science Groundbreaking Gregory Taylor, dean of science, invites you to join him and his guests, The Honourable Doug Horner, Minister of Advanced Education and Technology and Dr Indira Samarasekera, President and Vice-Chancellor, for the groundbreaking of the Centennial Centre for Interdisciplinary Science. Refreshments to follow. 11:30 a.m. - 1 p.m. Main Foyer Biological Sciences

Health Law Institute Seminar Series "Conscientious Objection Among Health Professionals." Dr. Chris MacDonald, Department of Philosophy, St. Mary's University, Halifax. This is a free public lecture 12 noon 231 Law Centre <http://www.law.ualberta.ca/hli/events.html>

Music at Noon, Convocation Hall Convocation Hall Student Recital Series Featuring students from the Department of Music Free

admission 12 noon Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

Voices at Dying, Dying to be Heard What do a palliative care physician, an outspoken disability-rights activist, a man paralyzed in a car accident, and a nervous social scientist have in common? Apparently, not much! Consequently, when this foursome find themselves part of a Federal Task Force designated to develop recommended policies for palliative care for people with disabilities, the tensions that result could rival those seen on any current Reality TV program! This play offers viewers a unique insight into some of the areas of contention and opportunities for alliance-building that currently exist between the palliative care community and the disability community when it comes to end-of-life issues affecting people with disabilities. 2 - 3:15 p.m. Classroom F (2J4.02) University Hospital (Walter C Mackenzie Health Sciences Centre) <http://www.ualberta.ca/bioethics>

University Teaching Services Giving and Receiving Feedback."As long as a person doesn't know what he doesn't know, he doesn't grow" (J.C. Maxwell). How then does a teacher help a student "to know" so that he/she can grow? This workshop will define feedback, distinguish between feedback and evaluation, address principles of giving effective feedback, and outline tools for providing feedback in the classroom setting. Presenter: Candide Sloboda, Nursing. 3 - 5 p.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

A generalized 3-D Cosserat point brick element for nonlinear elasticity: Comparison with other element formulations Dr. Miles Rubin Professor, Faculty of Mechanical Engineering Technion, Israel Institute of Technology. A number of example problems, which include small and large deformations and irregular shaped elements, have been considered to compare the predictions of the generalized 3-D Cosserat point brick element with other element formulations in the computer codes ABAQUS, ADINA, ANSYS and FEAP. 3:30 - 4:30 p.m. 2-002 Engineering Teaching and Learning Complex (ETLC). <http://www.uofaweb.ualberta.ca/mece/departmentseminars.cfm>

Hear's to Your Health The Vienna Piano Trio. 5 p.m. Foyer, Bernard Snell Auditorium University Hospital (Walter C Mackenzie Health Sciences Centre) <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 6 2007

Welcome to the Reel World - Scared Sacred In a world teetering on the edge of self-destruction, award-winning filmmaker Velcrow Ripper sets out on a pilgrimage. Visiting the 'Ground Zeros' of the planet, he asks if it's possible to find hope in the darkest moments of human history. This powerful documentary captures his five-year odyssey to discover if humanity can transform the 'scared' into the 'sacred.' 5 p.m. 325 CEB http://www.international.ualberta.ca/globaled_events.php?id=201

University Teaching Services Teaching Dossier Preparation. What is a teaching dossier and what kind of supportive documentation should it contain? Why are some U of A departments placing greater importance on teaching dossiers? The goal of this workshop is to answer these questions and to provide an opportunity for participants to start creating their own personalized dossier. Presenter: Margaret Wilson, University Teaching Services. 8 - 9:30 a.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

University Teaching Services Stimulating a Sense of Inquiry in Students. How does asking the right questions stimulate learning? Using problem-based learning (PBL) as a model of interaction, this session will explore the use of questioning to inspire student learning. Presenter: Ivan Steiner, Family Medicine and Emergency Medicine 3:30 - 5 p.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

Northern Speaker Series: Ed Struzik northern adventurer and 2006-2007 recipient of the Atkinson Fellowship in Public Policy This Hour Has Fifty Million Years: A Brief Look at the Ever-changing Natural History of the Arctic. Six-foot beavers, three-toed horses, scimitar cats, and western camels. Over the past two decades, the discovery of these and other now extinct animals has proven that the Arctic was at various times a much warmer place than it has been for tens of thousands of years. Join writer/photographer Ed Struzik as he takes you through a 45-million year journey into the Arctic past. Ed Struzik is an award-winning writer/photographer whose articles have appeared in various magazines and newspapers such as Canadian Geographic, Equinox, International Wildlife, The Edmonton Journal and Globe and Mail. He is author of the book Northwest Passage and Ten Rivers. Struzik is this year's winner of the Atkinson Fellowship in Public Policy, which

allows one Canadian journalist to focus on an issue of national importance for a year. 4 - 5:30 p.m. 3-36 Tory Building.

Rosalind I. J. Hackett, "Proselytization Revisited: Rights Talk, Free Markets, and Culture Wars." Professor Hackett, Distinguished Professor in the Humanities, University of Tennessee, Knoxville, will speak on the topic of "Proselytization Revisited: Rights Talk, Free Markets, and Culture Wars." Changing and disseminating one's religion have become even more controversial and problematic than they were when the Universal Declaration of Human Rights took form in 1948. 4 p.m. 1-6 Business <http://www.uofaweb.ualberta.ca/rs/>

Advance Film Screening of China Central Television's World Famous Universities You are cordially invited to the Advance Film Screening of China Central Television's World Famous Universities, a foreign documentary profiling the U of A. Doors open 5 p.m. Screening 5:30 - 6 p.m. Reception 6 - 6:30 p.m. Light refreshments will be served. Myer Horowitz Theatre Students' Union Building (SUB).

MAR 6 - 24 2007

Impressions From Turkey: Recent Prints by Aysegül Izer and Emre Senan The U of A Department of Art and Design is pleased to present Impressions From Turkey: Recent Prints by Aysegül Izer and Emre Senan. This exhibition represents the department's first project with artists and designers from Turkey and its first exchange with the Mimar Sinan University of Fine Arts in Istanbul. The exhibition presents the print works of two Turkish artists. Ayzegül Izer is a professor and head of the Graphic Design Department at Mimar Sinan University. She works in both painting and printmaking and this exhibition focuses on her work in lithography, screen and mixed media printmaking. Emre Senan is a designer and an artist, and is currently a director of a graphic design firm. A public lecture will accompany the exhibition: "The History of Graphic Design in Turkey" and "The Works of Emre Senan." March 6 at 5:10 p.m., Room 2-20 Fine Arts Building, University of Alberta. Regular Gallery hours are Tuesday to Friday, 10 a.m. - 5 p.m., and Saturday, 2 - 5 p.m. The Gallery is closed on Sundays, Mondays and statutory holidays. Room 1-1 Fine Arts Building Gallery

MAR 7 2007

Analysis of Protein Expression in an Aedes albopictus Cell Line Naturally Infected with Wolbachia Lesley Brennan, U of A Department of Biological Sciences, is presenting a seminar on "Analysis of Protein Expression in an Aedes albopictus Cell Line Naturally Infected with Wolbachia." 12 noon M-141, Biological Sciences Building Biological Sciences <http://www.biology.ualberta.ca/courses/biol642/>

Characterization of a pH Regulatory Protein. Structure, Function and Regulation of the Na+/H+ Exchanger of Eukaryotes Dr. Larry Fliegel, U of A Department of Biochemistry, is presenting a seminar from "Characterization of a pH Regulatory Protein. Structure, Function and Regulation of the Na+/H+ Exchanger of Eukaryotes." 12 noon M-141, Biological Sciences Building <http://www.biology.ualberta.ca/courses/biol642/>

Public Health Sciences Grand Rounds Dr. Deib Birkholz, director of research and development at ALS Laboratory Group will deliver a seminar entitled "Environmental Forensics: In Search of Endocrine Disrupting Compounds." 12 - 1 p.m. Room 2-117 Clinical Sciences www.phs.ualberta.ca

Natural Products as Templates for Drug Design Department of Chemistry Visiting Speaker lecture presented by Professor John Mann, School of Chemistry and Chemical Engineering, Queen's University of Belfast. 1 - 2 p.m. E3-25 Chemistry Centre, Gunning/Lemieux.

Eric J Hanson Memorial Lecture - Hon E Peter Loughheed Honourable E. Peter Loughheed will speak on "The Growing Complexity of Governing" at the Eric J. Hanson 13th Memorial Lecture in Telus Auditorium. Reception to follow in Telus Atrium RSVP by March 2, 2007 492-6670 IPE@ualberta.ca 3:30 p.m. 150 TELUS Centre

Smart Investment Seminar Get valuable investment advice from industry experts. Learn which type of investment is best for you. 7 p.m. Glacier Room Lister Centre www.uofaweb.ualberta.ca/youngalumnni

University Teaching Services Information Literacy: Keeps on Working After Classes End. You have the power to influence your students' development as seekers and users of information. Are you aware of their current information-seeking behaviours? Do they know the difference between popular literature and substantive research? If you

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Healthy Pancake Breakfast!

Wednesday, March 7th

Time: 8:00am - 11:00am or until we run out

Robert Newton Lounge (Agriculture, Forestry and Home Economics Building)

Nutrition Month theme: eat well, live well...
helping Canadian's discover the pleasures and benefits of cooking.

Menu:

Multigrain pancakes • Turkey and vegetarian sausages • Fresh fruit
Juice • Milk-2-Go • Assorted muffins and baked breakfast goods.

Price: By suggested donation of \$4.00

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tell them not to use Google, what fills the void this may have created? Does your research assignment help them develop critical research skills? You will leave this session with some guidelines and ideas for designing undergraduate research assignments that weave information literacy skills into course content, plus an understanding of the collaborative and supporting role your liaison librarian can play as you foster lifelong learners in your classroom. Presenter: Jan Colter, Libraries 3 - 4:30 p.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

University of Alberta Orchestral Winds

Angela Schroeder, Director Overture for Winds Op. 24: Mendelssohn Suite in Bb, Op. 4: Richard Strauss Little Threepenny Music: Weill 8 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 8 2007

Monthly History of Medicine Seminar

Series "On the Use of Data from Nazi Medical Experiments" Dr. Gary Goldsand (Clinical Ethics, Royal Alexandra Hospital). 12 - 1 p.m. 259 Zeidler Ledcor Centre <http://www.uofaweb.ualberta.ca/historyandclassics/histmedsemseries.cfm>

Forest Industry Lecture Series No. 57

Where Does Canada Stand on Global Competition in the Forest Industry? Craig Neeser, president, Weyerhaeuser Canada. There is a poster session at 2 p.m. and the lecture starts at 3 p.m. 2 - 4:30 p.m. Meyer Horowitz Theatre Students' Union Building (SUB) <http://www.rr.ualberta.ca>

Creative Works Reading by Richard Harrison

Richard Harrison is the author of six books of poetry, among them Hero of the Play, Big Breath of a Wish and Worthy of His Fall. Big Breath, the latter which followed Harrison's daughter's acquisition of speech and was nominated for the Governor-General's Poetry Award and won the City of Calgary Book Prize in 1999. Harrison's poems (translated into four languages) and essays have been published internationally. He lives in Calgary. This visit is made possible by the grant from the Alberta Foundation for the Arts. 3:30 p.m. HC L-3 Humanities Centre <http://www.humanities.ualberta.ca/english>

Mechanical Engineering Alumni Reception

Join other Edmonton-area Engineering alumni and friends of the Faculty as we pay tribute to all of you who carry on the great tradition of the U of A engineer. Dr. David Lynch, dean of engineering, looks forward to meeting you and updating you on the Faculty's recent successes and plans for future growth. 5:30 - 7:30 p.m. Engineering Teaching and Learning Complex (ETLC)

Novel animal models of antidepressant

action Patricia Gongal, Department of Biological Sciences, University of Alberta is presenting a seminar on "Novel animal models of antidepressant action." 12:30 p.m. MEC 4 3 Mechanical Engineering <http://www.biology.ualberta.ca/courses/genet601/index.php?Page=398>

University Teaching Services

Personal response systems in the Classroom: The Good, The Bad, and The Ugly of Clickers. Personal response systems, or "clickers," are quite common in university classrooms in the U.S. and are becoming more common in Canadian universities. Clickers allow students to provide anonymous responses to questions in the classroom while still allowing instructors to track individual and class learning. For the past year, the Departments of Biological Sciences, Chemistry, and Physics have funded a pilot project for testing clickers. The speakers in this session will present their experiences, as instructors, in using the clickers in classes of various sizes. Some student feedback will also be presented. Presenters: Glen Loppnow, chemistry Pierre-Nicholas Roy, chemistry Shelagh Campbell, biological sciences Isaac Isaac, physics Terry Singleton, physics 3:30 - 5 p.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

Looking at gender in intercultural communication: What role does it play? Presentation by Dr. Julie Kerekes from OISE. 4 - 5 p.m. ED S 113 Education Centre

Investment Seminar an introduction to investments presented by Jim Yih of Core investments and Ray Turchansky of the Edmonton Journal. 7 p.m. Glacier Room Lister Centre www.uofaweb.ualberta.ca/youngalumni

MAR 9 - 24 2007

Semaine nationale de la francophonie « La francophonie, j'en fais partie ! » On the occasion of the 15th national francophonie week, the theme "Francophonie, I am a part of it" unites all francophone educational institutions around the world. This year Campus Saint-Jean has chosen to highlight Lebanon as a country which shares a francophone heritage. Most activities are free but since Campus Saint-Jean has an MOU with Saint-Joseph University in Beirut and due to the recent events in Lebanon, revenues from some activities will be used to establish scholarships for Lebanese students wishing to study at Campus Saint-Jean Room 2-73

Pavillon McMahon. www.csj.ualberta.ca/cerf

MAR 9 2007

Alberta's Historical and Future Landuse Trajectories; The Erosion of Ecological Capital - The Illusion of Wealth Brad Stelfox, U of A Department of Biological Sciences, is presenting a seminar on "Alberta's Historical and Future Landuse Trajectories; The Erosion of Ecological Capital - The Illusion of Wealth." 12 noon M-149, Biological Sciences Building <http://www.biology.ualberta.ca/courses/biol631/index.php?Page=326>

Health Ethics Seminars - Bioethics Week

Event "Ethical Engagement with Patients: Is It Being Undermined?" Presented by Wendy Austin, RN PhD, Canada Research Chair in Relational Ethics in Health Care John Dossetor Health Ethics Centre & Professor in Faculty of Nursing 12 - 12:45 p.m. 207 Heritage Medical Research Centre <http://www.ualberta.ca/bioethics>

Examining interlanguage pragmatic data Dr. Julie Kerekes from OISE/UT will examine interlanguage pragmatic data that are both naturalistic and quantifiable. What sorts of questions about second language learning can be asked using an empirical foundation? 2 - 3 p.m. ED 113 Education Centre <http://www.ualberta.ca/~teststgtp/>

The chaplains: Cell surface proteins essential for aerial development in Streptomyces coelicolor

Marie Elliot, Department of Biology, McMaster University, is presenting a seminar on "The chaplains: Cell surface proteins essential for aerial development in Streptomyces coelicolor." 3:30 p.m. M-149, Biological Sciences Building <http://www.biology.ualberta.ca/courses/genet605/index.php?Page=399>

Examining institutional discourse: The evolution of a sociolinguistic research design

Dr. Julie Kerekes from OISE/UT will address the topic of power in intercultural, institutional discourse contexts. How does a research plan develop and change? How do troublesome concepts such as "native speaker" and "target language" relate to the application of sociolinguistic findings in second language studies. 5 - 6:30 p.m. ED 113 Education Centre <http://www.ualberta.ca/~teststgtp/>

History of Medicine Seminar History of Medicine Seminar; Dr. Gary Goldsand. 12 - 1 p.m. 2-59 Zeidler Ledcor Centre

What Does Fat Do?: The Politics of (Bodily) Knowledge Third presentation in our Special Speaker Series by Dr. Pirkko Markula. The BBC Breakfast News (October 2, 2006) claims that, based on a recent European health survey, England is the fattest nation in Europe. Findings like this have lead to numerous world wide campaigns against increasing obesity levels lead by the World Health Organisation. Marzula will compare and contrast different readings of fat and obesity to discuss the political consequences of knowledge production in contemporary society. 3 p.m. E121 Physical Education and Recreation Centre, Van Vliet.

Music at Convocation Hall I Marina Hoover, cello. Patricia Tao, piano. Sonata: Debussy Sonata: Poulenc La Lugubre Gondola: Liszt Sonata No 1 for cello and piano: Richard Strauss 8 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 10 2007

Choral Masterclass Visiting Artists Vancouver Chamber Choir 10 a.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

Teaching Religion in Public Schools:

Impossible to Avoid? Guest Scholar: Dr. David Smith, professor, secondary education. Moderator: Dr. Martin Tweedale, professor emeritus, Philosophy 2 - 3:30 p.m.

Visiting Artists Concert -Vancouver

Chamber Choir. Jon Washburn, conductor. Music of the Americas. The program includes works by composers from Argentina (Guastavino), Brazil (Oswald), Cuba (Silva), Mexico (Franco) and the US (Bernstein, Paulus and Whitacre) as well as Canada (Daunais, Houdy and Robinovitch) 8 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

Visiting Artist Recital Richard Cionco, piano Bagatelles op. 126: Beethoven Sonata No 32, Op 111: Beethoven Sonata no. 30, Op 109: Beethoven Six Musical Moments, Op 16: Rachmaninov. 3 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

Noon Hour Organ Recital A variety of organ repertoire played by students, staff and guests of the Department of Music 12 noon Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 12 2007

Piano Masterclass Visiting Artist Richard Cionco 3:30 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

MAR 13 2007

Rediscovering Musical Identity through

Narrative in Pre-service Teacher Education The primary goals of the Music Methodology Dr. Adler teaches are to reconnect elementary generalist teacher candidates with the music in their lives, and to empower them to undertake personal expression in the medium of music. Adler will discuss the development, implementation and results of his use of narrative in the pre-service teacher education classroom. 12:30 p.m. - 2 p.m. Room 633 Education Centre <http://www.uofaweb.ualberta.ca/elementaryed/CRTEd.cfm>

Welcome to the Reel World - Between Midnight and the Roosters Crow In the aggressive search for the 'black gold' that drives Western economies, multinational corporations are working to extract billions of dollars of oil reserves from beneath Ecuador's rainforest. 'Between Midnight and the Rooster's Crow' investigates the operations of the EnCana Corporation, which despite public declarations of its social responsibility, is shown to be answerable for widespread environmental contamination and human rights violations. 5 p.m. 325 CEB http://www.international.ualberta.ca/global_events.php?id=201

MAR 14 2007

New Staff Orientation to the University All new academic and support staff are invited to attend orientation. This general orientation will acquaint you with the business of the U of A. Hear what U of A leaders have to say about our mission and vision, and learn about resources available to support you professionally and personally. An optional walking tour of campus will be available after the program (3:15 p.m.). Staff members who have not previously attended are also welcome. Advance registration is required. Register online at The Learning Shop: www.learningshop.ualberta.ca 8:30 a.m. - 3 p.m. Maple Leaf Room Lister Centre <http://www.hrs.ualberta.ca/Orientation>

Alberta Injury Control Teleconference Jennifer Drozdowski, senior associate, special projects, Alberta Centre for Injury Control & Research, School of Public Health, U of A, will present a seminar entitled Working Together to Make Alberta the Safest Place to Live. Month-to-month subscriber rates for the teleconference are \$20 (\$25 for out of province). Port reservations must be made in writing (by fax) no less than 48 hours prior to the schedule teleconference. 9 - 10 a.m. 4070-A Research Transition Facility www.med.ualberta.ca/acir

Effects of Xenoestrogens on Gametogenesis and Reproduction in Fishes Dr. David Janz, Department of Veterinary Biomedical Sciences, Western College of Veterinary Medicine, University of Saskatchewan, is presenting a seminar on "Effects of Xenoestrogens on Gametogenesis and Reproduction in Fishes." 12 noon M-141, Biological Sciences Building Biological Sciences <http://www.biology.ualberta.ca/courses/biol642/>

Public Health Sciences Grand Rounds Dr. A "Sentil" Senthilselvan, Department of Public Health Sciences. Topic: Accelerated Decline in Lung Function in Grain Farmers: An Application of Mixed Models 12 - 1 p.m. 2-117 Clinical Sciences <http://www.phs.ualberta.ca>

WestGrid Seminar Series Serial Programming on WestGrid. Intro to serial programming on WestGrid resources - a survey of compilers, debuggers and numerical libraries. 1:30 - 2:30 p.m. 315 General Services Building <http://www.westgrid.ca>

MAR 15 2007

Lunch by the Books: Sustainable Peace (Andy Knight, political science) Lunch by the Books is a free noon-hour learning series. Presentations run from 12:05 - 12:50 p.m. The violent conflict between Israel and Hezbollah, as well as the longstanding feuds between the state of Israel and its neighbours, is again a sobering reminder of the need to build peace that is sustainable. Unless we learn how to deal with underlying sources of conflicts and create the conditions of sustainable peace, our precarious period of relative tranquility could be over soon - leaving us on the brink of World War III. All are welcome! Bring your lunch! Lunch by the books is presented by the Faculty of Arts and the Edmonton Public Library. <http://www.uofaweb.ualberta.ca/arts/LunchbytheBooks.cfm>

University Teaching Services Teaching and Learning Basics for the University Teaching Program. Teaching and Learning Basics offers graduate students in the University Teaching Program opportunities to practice their teaching skills. The third Thursday morning of each month is set aside for graduate students and others to present to their peers on an aspect of teaching or learning. Participants are invited to give a 15-minute presentation on a teaching topic of their choice. Discussion following the presentations will focus on teaching and learning basics. 9 a.m. - 12 noon CAB 215 Central Academic Building <http://www.ualberta.ca/UTS/>

Population Health Promotion ~ Research Series Dr. Ann C. Macaulay will present a seminar entitled, "Participatory Research in Health

Promotion" 12 - 1 p.m. Dvorkin Room 2G2.07 University Hospital (Walter C Mackenzie Health Sciences Centre). http://www.chps.ualberta.ca/research_series.cfm

Renewable Resources Seminar Series Schedule Dr. Ron Hall, Canadian Forest Service, will present a seminar entitled, "Remote sensing for inventory and natural disturbance: opportunities and challenges." 12:30 - 2 p.m. Room 236 Earth Sciences Building Earth Sciences http://www.rr.ualberta.ca/What's%20Happening/Seminars_lectures/Index.asp?Page=Index

Department of Economics/Institute for United States Policy Studies Seminar John Taylor Stanford University Senior Fellow, Hoover Institution, Former Under Secretary of Treasury for International Affairs. Global Financial Warriors: The Untold Story of International Finance in the Post-9/11 World. 3:30 - 5 p.m. 2-20 Fine Arts Centre <http://www.stanford.edu/~johntay/>

MAR 15 - 24 2007

Peer Gynt, by Henrik Ibsen, directed by Paul "Sparky" Johnson Augustana Drama presents Peer Gynt, by Henrik Ibsen and directed by Paul "Sparky" Johnson. All performances at 7:30 p.m. except March 17, which is a matinee performance at 2 p.m. No performances March 19 and 20. Peer Gynt is Ibsen's famous epic drama based on Norwegian folklore. Peer Gynt is both villain and hero as he tries to live out his fantastic dreams of greatness. Tickets: \$12 General Admission (Students with ID: \$6). Available at the Theatre Centre Box Office Monday to Friday, March 5-9, March 12-16, 19-23 from 2 - 4 p.m. and 30 minutes prior to curtain. Out of town callers paying by charge card may call (780) 679-1503 to order tickets. 7:30 p.m. Theatre Centre Augustana Campus.

MAR 16 - 17 2007

Augustana Art Studio Performance Grant Exhibition Augustana students receiving art scholarships present their work in a student exhibition. The exhibit will open on Friday at 10 a.m. and continue until 5 p.m. with remarks and award announcements at 2 p.m. It will remain open on Saturday from 11 a.m. - 4 p.m. 1 - 4 p.m. A030 (Art Studio) Auxillary Building

MAR 16 2007

Tree size distribution across forest communities Fangliang He, Department of Renewable Resources, is presenting a seminar on "Tree size distribution across forest communities." 12 noon M-149 Biological Sciences <http://www.biology.ualberta.ca/courses/biol631/index.php?Page=326>

Does Qualitative Research Count?: Standards for Quality Research Fourth presentation in our Special Speaker Series featuring Dr. Pirkko Markula. As the popularity of qualitative research has increased, there has also been a proliferation of methods and ways of conducting this type of research. With this increased choice, it is more difficult to make an informed decision of what type of method to use. Furthermore, how do we know what type of qualitative research gives us meaningful results? 3 p.m. E121 Physical Education and Recreation Centre, Van Vliet.

Department of Economics Micro Seminar Jean-Etienne Bettignies, UBC. Title: TBA 3:30 p.m. 8-22 Tory Building, Henry Marshall

MAR 17 2007


Annual History of Medicine Day This event will showcase some of the research currently being conducted by U of A students. Students will present their research and learn about other subjects and approaches to the history of health and medicine. Topics might include but are not limited to those covering the history of health and healing, medical practices, biographies, institutions, diseases, and health policies. A keynote speaker TBA. 8 a.m. - 5 p.m. 207 Heritage Medical Research Centre <http://www.uofaweb.ualberta.ca/historyandclassics/HistMedDay.cfm>

Fat Taxes and Thin Subsidies: Is There a Role for Government in Tackling Obesity and Dietary Disease? Guest Scholar: Dr. Sean B. Cash, assistant professor, Department of Rural Economy Moderator: Dr. Martin Tweedale, Professor Emeritus, Philosophy. 2 - 3:30 p.m. <http://www.uofaweb.ualberta.ca/publicaffairs/philosopherscafe.cfm>

Northern Alberta Honor Band Angela Schroeder, Conductor 7 p.m. Arts and Convocation Hall <http://www.uofaweb.ualberta.ca/music/briefs.cfm>

Wearin' o' the Green: An Evening of Celtic Entertainment with The Augustana Choir and Celtic musicians. Artistic director Dr. Ardelle Ries. Celebrate St. Patrick's Day with Celtic entertainment and a Danny Boy Celtic Idol singing competition - join the Augustana Choir and friends! Desserts and hors d'oeuvre provided by the Lefse House. Tickets available in advance at the Augustana Bookstore and Candler Art Gallery in downtown Camrose. Purchases from out of town guests by credit card should be directed to (780)

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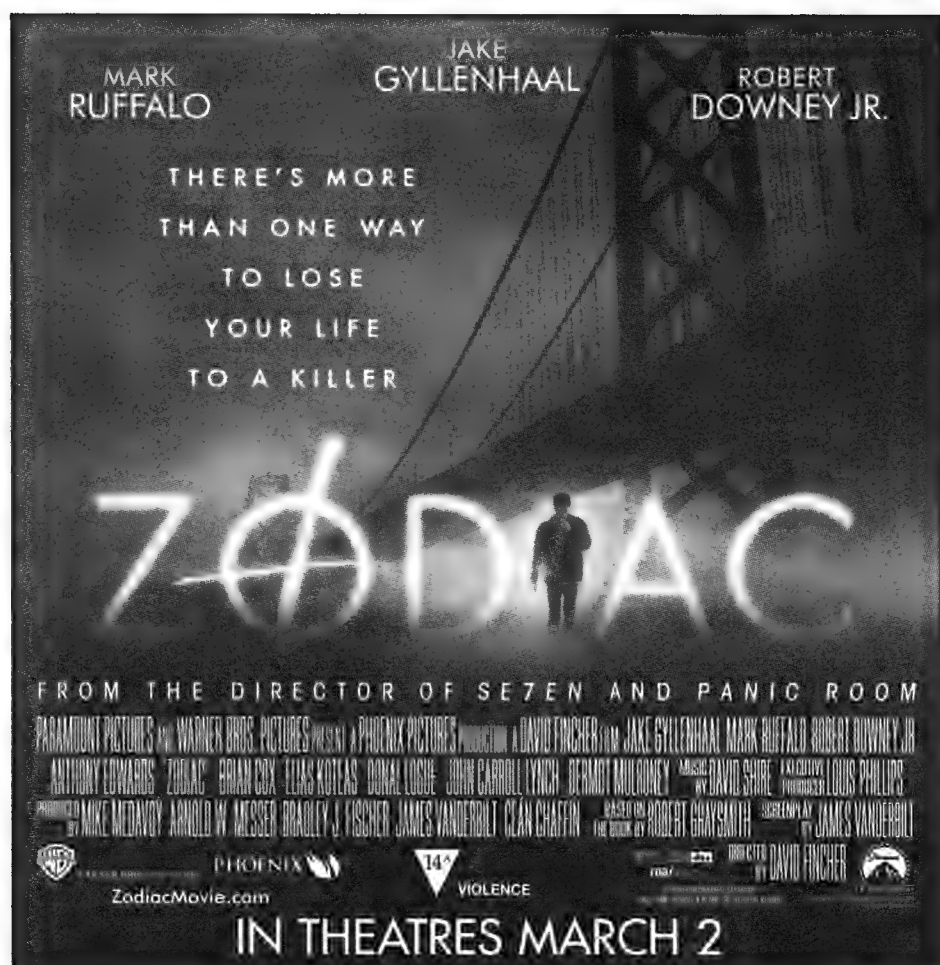
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679-1503. Limited seating - get your tickets early.
7:30 p.m. Faith & Life Chapel Faith and Life Centre.

MAR 18 2007

Science Sunday Look, touch, create, discover! The University of Alberta Museums presents the eighth annual Science Sunday, an educational and entertaining event for kids aged 5-12. Through fun, hands-on activities, kids discover the wonders of science in museums and collections. Admission by donation. Call Museums and Collections Services at 492-5834. 12 - 4 p.m. Earth Sciences <http://www.museums.ualberta.ca/welcome.htm>

Ol' Tyme Skating Party feat. U of A Concert Band Bring your family and friends and come and join us at the Clare Drake Arena for an afternoon of skating, fun on-ice activities and light refreshments. The Concert Band will perform. Whether you actually come to skate or just come to listening to the music, it's a great family friendly event. 2:45 - 4:45 p.m. Dressing Room #5 & #6 Clare Drake Arena <http://www.campusrec.ualberta.ca>

Camrose and District Community Band Concert The Camrose and District Community Band will perform a variety of selections, from standard concert band literature and marches, to jazz and movie themes. The band is comprised of many Augustana students taking the band course for credit and other students who are auditing, as well as music enthusiasts and musicians from Camrose and area. Silver collection at the door. 3 p.m. Faith & Life Chapel Faith and Life Centre

MAR 19 2007

Visiting Lecturer James DiRenzo, PhD, assistant professor of pharmacology, Dartmouth Medical School, Scientific Director of the Comprehensive Breast Program, Norris Cotton Cancer Centre. "Reciprocal Interactions Between TP63 and Hedgehog Signaling in the Mammary Regenerative Cycle." 9:30 - 10:30 a.m. 510 Medical Sciences Building Aberhart Centre <http://www.ualberta.ca/cellbiology>

MAR 20 2007

Open Access: The Sea Change in Scholarly Publishing. A Forum with Dr. John Willinsky Dr. John Willinsky proposes that current changes in scholarly publishing are poised to increase the global circulation of knowledge, while improving its scholarly and public quality. He will discuss ways in which the publishing choices that faculty and graduate students make can extend the contribution and reach of their work. He will also highlight the Open Journal Systems software, a system which can reduce the economic and energy demands of journal publishing, while adding to the rigor and coherence of the academic enterprise. Dr. Willinsky's award-winning Public Knowledge Project is the world's leading open source software for journal publishing, and his recent book The Access Principle has won this year's Blackwell Award for Scholarship. 1:30 p.m. Horowitz Theatre <http://www.library.ualberta.ca/oaforum/>

Welcome to the Reel World - Trading Women Trading Women enters the worlds of brothel owners, trafficked girls, voluntary sex workers, corrupt police and anxious politicians. This documentary investigates the trade in minority girls and women from the hill tribes of Burma, Laos and China, into the Thai sex industry and the international community's response to the issue. Environmental and political factors have resulted in threats to both the physical and cultural survival of the highland minorities. "Trading Women" examines the choices that hill tribe women make, and how these choices are constrained by the economic and political conditions in which they find themselves. 5 p.m. 325 CEB http://www.international.ualberta.ca/global_events.php?id=201

Electrical and Computer Engineering Alumni Reception Join other Edmonton-area U of A Engineering alumni and friends of the faculty as we pay tribute to all of you who carry on the great tradition of the U of A Engineer. Dr. David Lynch, Dean of Engineering, looks forward to meeting you and updating you on the Faculty's recent successes and plans for future growth. 5:30 - 7:30 p.m. Engineering Teaching and Learning Complex (ETLC)

MAR 21 - 23 2007

The Greying Nation: Transitions of care in later life The Greying Nation conference will address how the health care sector can adapt care to the changing needs of the population in the later stages of the life cycle. Conference topics will include: models of care, service delivery and education, changing needs of an aging society, innovative technologies and perspectives on aging as expressed through the visual arts. <http://www.capitalhealth.ca/greyingnation>

MAR 21 2007

Public Health Sciences Grand Rounds Dr. Kay Teschke, University of British Columbia, Department of Health Care and Epidemiology. "Cycling as a Mode of Urban Transport: Opinions,

Politics and Research Issues." 12 - 1 p.m. 2-117 Clinical Sciences <http://www.phs.ualberta.ca/>

University Teaching Services Integrating Teaching and Research: What Do We Know? The aim of this presentation is to look at how we can develop a deeper understanding of the relationship between teaching and research at an institutional level. The presenter will report on institutional strategies that are being implemented at the University of Sydney, Australia. The session will also cover directions for the future that could help break down the distinctions between teaching, learning and research to create an environment where students and academics work together to develop strategies, techniques, tools, knowledge, and experience to address complex, important, and difficult problems of the world today. Angela Brew, Institute for Teaching and Learning, The University of Sydney, Australia 3 - 4:30 p.m. CAB 243 Central Academic Building <http://www.ualberta.ca/UTS/>

Frederick W. Pheasey Lecture in Engineering Ethics and Reception You and a guest are cordially invited to attend the inaugural Frederick W. Pheasey Lecture in Engineering Ethics to be delivered by Gwyn Morgan (Mechanical '67), Founder and former President and CEO of EnCana. Reception to follow at 5:30 pm in the ETLC Solarium. 4:30 - 5:30 p.m. 01-001 Engineering Teaching and Learning Complex (ETLC)

Hate Crimes and Human Rights: What You Should Know and What You Can Do to Create a Safer Campus Community Inside/OUT 2006/2007 Speakers' Series Profiling LGBTQ-Related Work at the university. Presenter: Constable Robinder Gill, Edmonton Police Service's Hate and Bias Crime Unit and Kristopher Wells, Member, Edmonton Police Chief's Advisory Council. Drawing upon police counter-intelligence, this presentation examines resurging extremism and hate and bias crime in Alberta. In our discussion we highlight current statistics, define what constitutes a hate/bias crime or incident, and outline proper reporting mechanisms. We also identify warning signs, symbology, and coded messages utilized by extremists, anti-government radicals and white supremacists. We theorize how these 'cells' and/or 'lone wolves' are often motivated to engage in hate and bias crimes by their disenfranchisement and alienation as youth, which we posit as demonstrating the need for educational intervention. After each presentation we invite you to join us at the Sugar Bowl to continue to network and socialize. Inside/OUT is a campus-based network for LGBTQ and allied faculty, graduate students, academic and support staff of the U of A. We also invite undergraduate students and interested members of the community to attend. For more information regarding Inside/OUT, please contact Kristopher Wells or Marjorie Wonham or visit <http://www.mailman.srv.ualberta.ca/mailman/listinfo/inside-out> to join the confidential Inside/OUT listserv. 5 - 6:30 p.m. 165 Education South Education Centre <http://www.uofaweb.ualberta.ca/education/pdfs/InsideOUT200607SpeakersSeriesPoster.pdf>

Personal Retirement Planning: An Exploration of Issues in Two Parts Are you ready to make your retirement the best years of your life? The Alumni Association is pleased to offer a two-evening seminar on retirement planning. Led by two of Edmonton's leading professional retirement planners, the session will explore retirement from two perspectives: lifestyle and financial. Five Things I Wish Someone Had Told Me Before I Retired with Rein Selles, MSC, PRP President, Retirement Life/Challenge Ltd. 6 - 9 p.m. 113 Education Centre <http://www.uofaweb.ualberta.ca/alumnieducation/retirement.cfm?CFNoCache=TRUE>

MAR 22 - 23 2007

Injury Research Data Workshop The Data-Day World of Injury Research This two-day workshop is intended for researchers and practitioners involved in prevention, control, and research activities related to injury, risk, and safety. Please refer to the link below for a registration form. Registration fee is \$315 + GST. 9 a.m. - 4 p.m. Maple Lister Centre http://www.acicr.ualberta.ca/documents/Injury_DATA_Workshop.pdf

MAR 22 2007

Renewable Resources Seminar Series Schedule Dr. Glen Armstrong, Department of Renewable Resources will present a seminar entitled "Unintended consequences of reforestation policies: a forest-level analysis." 12:30 - 2 p.m. Room 236 Earth Sciences Building Earth Sciences http://www.rr.ualberta.ca/What's%20Happening/Seminars_lectures/Index.asp?Page=Index

Dr. Kiera Ladner - "Decolonizing the Discipline: Indigenous Peoples and Political Science" As a Masters student, I remember being told time and time again that if I wanted to 'study Indians' I belonged in sociology, anthropology or Native Studies. It seemed as if studies of Indigenous politics belonged anywhere but in political science. Times have changed. Studies of Indigenous politics are increasingly becoming an object of study with-

in the discipline. Yet, political science continues to perpetuate a western-eurocentric understanding of the world that virtually denies 'others' a voice within the discipline. The emergence of Aboriginal peoples as an object of inquiry in the discipline of political science reflects their becoming active (or at least noticed) in the politics of the colonizer. 3:30 p.m. 14-28 Tory Building, Henry Marshall http://www.uofaweb.ualberta.ca/polisci/SpeakersSeries_0607.cfm

Isabel Altamirano-Jimenez - "Indigenous Women and Feminism: Acting in the Political Space" Despite appearances to the contrary, Indigenous women are complex figures to feminists. They are complex not only because of their double identity but because Indigenous women's actions and political positions seem to point in contradictory directions. In this paper, I argue that developing a Native feminist politics focused on self-government and self-determination requires a more critical analysis of Indigenous activists' responses to feminism and sexism within Indigenous communities. Indigenous women's perspectives cannot simply be reduced to the dichotomy of feminism versus non-feminism nor is there a clear relationship between the extent to which Indigenous women call themselves feminist and the extent to which they are 'genuinely' nationalists. 3:30 p.m. 14-28 Tory Building, Henry Marshall http://www.uofaweb.ualberta.ca/polisci/SpeakersSeries_0607.cfm

Hydrocarbon Thermophysical Properties: an unexpected frontier Dr. John Shaw professor, Department of Chemical Engineering. Hydrocarbon feed stocks such as bitumen and heavy oil from Canada and heavy oil from Mexico and Venezuela have grown from curiosities to comprise key energy resources for the North American market, with production rates exceeding 5 million barrels

positions

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DIGITAL INITIATIVES CO-ORDINATOR UNIVERSITY OF ALBERTA LIBRARIES

The University of Alberta Libraries is looking for a dynamic project manager to take primary responsibility for managing the development of digital collections and ensuring that these collections are timely, relevant and well-used. Working with those involved in the Peel's Prairie Provinces initiative, the Lois Hole Campus Alberta Digital Library (LHCADL) and other digital initiatives, you will provide coordination and leadership (system level and externally) and management of production activities.

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 - Experience in project management; familiarity with preparation of technical and functional specifications (image capture, database design, search and presentation features); software evaluation; system configuration and management; staff training and technical support
 - Knowledge of information technology trends and their application to emerging digital library issues such as image display, metadata standards, authentication, integration/reference linking technologies, search standards and protocols
 - Skills in relational database design (e.g. MySQL, Oracle), a working knowledge of presentation mechanisms/languages (e.g. CSS, JavaScript, XML/XSL), programming languages (e.g. Cold Fusion, PERL, PHP, Java), and of web server OS environments (e.g. UNIX/Solaris, Linux and Apache) would be strong assets.
 - Strong communication and interpersonal skills and successful participation in collabora-

per day. The processes used for their production and refining can be surprisingly inefficient. The technical and economic incentives to develop better processes are clear. Why hasn't this happened? 3:30 - 4:30 p.m. 2-002 Engineering Teaching and Learning Complex (ETLC) <http://www.uofaweb.ualberta.ca/mece/departmentseminars.cfm>

Institute for United States Policy Studies/ Department of Economics Joint Seminar Charles Kolstad Bren School of Environmental Science and Management University of California, Santa Barbara Charles Kolstad is an environmental economist at the Bren School, University of California at Santa Barbara. The lecture topic is TBA. 3:30 p.m. 8-22 Tory Building, Henry Marshall

MAR 23 2007

CBEEEDAC / CABREE Applied Energy Seminar
8-22 Tory Building, Henry Marshall

Departmental Seminar Dr. Evan Cooch, Department of Natural Resources, Cornell University, will present a seminar entitled, "Why, what, and how: Motivation and new methods for ecological monitoring." Hosted by Dr. David Hik. 12 - 1 p.m. M 149 Biological Sciences http://www.biology.ualberta.ca/news_events/events/index.php?Show_Description=Yes&month=3&year=2007&day=&Series=6&Show_All=

Milton Schlosser (Piano), Tanya Prochazka (Cello), and Gillaume Tardif (Violin) - in Concert. Milton Schlosser (piano), Tanya Prochazka (cello), and Gillaume Tardif (violin) present a recital of piano trio music featuring the compositions of Fauré, Debussy, and Ravel. Tickets are \$12 (adults); \$8 (students/ seniors); \$30 (family). Available at the door. 8 p.m. Faith & Life Chapel Faith and Life Centre.

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E-mail: karen.adams@ualberta.ca

DIGITAL REPOSITORY SERVICES LIBRARIAN UNIVERSITY OF ALBERTA LIBRARIES

The University of Alberta Libraries is looking for a dynamic librarian with marketing and technology skills to take primary responsibility for the Library's digital repository and its services, including its geographically-based data repository and services. You will administer the digital repository and its services and provide leadership to those serving in the liaison role in developing strategies to recruit content for the repository. You will also take responsibility for communication with and support for users of the digital and spatial data repositories, the Open Journal System and the Open Conference System Hosting Service and will coordinate metadata activities with respect to the digital and spatial data repositories.

As the Digital Repository Services Librarian, you will collaborate with the staff of the Information Technology Resources and Services Unit, the Data Library and the Maps Library to ensure the successful implementation of the repositories. You will liaise with on-campus users of the repositories, including the Faculty of Graduate Studies and Research to ensure the deposit of e-theses. Your external involvement will include participation in local, regional and national bodies related to digital repositories in order to maximize service available to campus users.

The University of Alberta Library is Canada's second largest research library, with an active

program of electronic information products, Web development supporting collections and services, and digital library initiatives in areas such as document delivery, graphic image and data collections, and Internet resource cataloguing. For more information, visit our web site at www.library.ualberta.ca.

- Qualifications, Preferred Skills and Experience:
- Master of Library Science from an ALA accredited institution.
 - Knowledge of marketing strategies appropriate to libraries and to expanding voluntary participation in repository services
 - Knowledge of information technology trends and their application to emerging digital library issues such as image display, metadata standards, authentication, integration/reference linking technologies, search standards and protocols
 - Knowledge of GIS applications and services; skills in ArcGIS or other GIS software would be an asset.
 - Strong communication and interpersonal skills, and successful participation in collaborative work environments. Experience in the liaison role highly desirable. Front line experience in library public services and collection development an asset. Enthusiasm, resourcefulness, organizational skills, and a sense of humour are essential.
 - Ability to work independently and meet deadlines.
- Salary and Rank:
This tenure-track position is classified at the Librarian 2 level with a current salary range of \$65,571 to \$104,291. Librarians at the University of Alberta have academic status and participate in a generous benefits program. Closing date for the position is March 23.
- Please mail, fax or e-mail your resume and the names of three references to:
- Karen Adams
Director of Library Services and Information Resources
Cameron Library
University of Alberta
Edmonton, Alberta, Canada T6G 2J8
Fax: (780) 492-8302
E-mail: karen.adams@ualberta.ca

MANAGER, STUDENT AWARDS OFFICE OF THE REGISTRAR AND STUDENT AWARDS

The University of Alberta seeks an energetic, service-oriented professional to lead the Student Awards unit within the Office of the Registrar and Student Awards.

The Office of the Registrar and Student Awards provides student and academic support services and systems to the University community. This unit is a major component of the University's recruitment and retention initiatives. The Manager, Student Awards, reports to the Assistant Registrar (International, Recruitment, and Student Awards) and manages a unit of eight staff members.

The Manager of Student Awards leads the staff and operational management of all university entrance, scholarship, and award programs for domestic and international undergraduate students. The Student Awards office is responsible for overall direction, planning and on-going management of university entrance, undergraduate, and transfer scholarship programs as well as supporting the development of new awards and scholarships. As part of the larger Office of the Registrar and Student Awards, Student Awards facilitates the coordinated promotion of award programs to target audiences both nationally and internationally, coordinates awards for all undergraduate Faculties on campus, implements the awards policies approved by the various policy-making bodies and reports to these committees on issues and concerns that are identified. To learn more about the Student Awards Office, visit our website at www.ualberta.ca/awards

The successful candidate will present demonstrated experience in team building and management; operational and project management; and background in scholarship and awards, financial planning and administration, marketing and communications and development. You will have an undergraduate degree complemented by strong skills in student and financial administration systems (experience with Peoplesoft is an asset), change management, organization, interpersonal skills and a proven dedication to superior customer service.

The closing date for the receipt of applications is March 7.

The salary range for this full-time continuing Administrative/Professional Officer position is from \$47,918 to \$75,876 per annum and a comprehensive benefits package. A letter of application, resume, and the names of three professional references should be sent to:

Shelley Smith
Human Resource Officer
Office of the Registrar and Student Awards

University of Alberta
201 Administration Building
Edmonton, AB, Canada T6G 2M7

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Celebrating the Start of Spring!

Wednesday, March, 21st 2007 | 10am-10pm

Free massage will be given
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notices

Please send notices via e-mail public.affairs@ualberta.ca. Notices should be received by 12 noon Thursday one week prior to publication.

THE EDMONTON CONSULAR BALL SCHOLARSHIP FOR INTERNATIONAL STUDIES

Endowed by the Edmonton Consular Corps Value: \$1,000 plus travel expenses of \$2,500 The Edmonton Consular Ball Scholarship in International Studies was established in 1980 with funds generated by the Edmonton Consular Ball, which was held to mark the 75th anniversary of the province of Alberta. In each of the succeeding years, the Consular Corps contributed proceeds from the annual Ball to the University for the Scholarship.

Awarded to graduate or third and fourth year undergraduate students who wish to undertake a summer research project in the area of International Studies. Students from all faculties are encouraged to apply. Two to three scholarships are awarded annually.

Applications are in the form of a letter accompanied by a short essay/proposal (maximum of 3 pages) describing the topic the student wishes to study and how it will benefit the student. The study may focus on any international aspect of the student's discipline. Application package must include: 1) cover letter, 2) brief curriculum vitae (including the student's social insurance number, 3) the faculty and department, year of study, and major area of study) 4) and school transcripts.

Please submit applications to:
Chair, Consular Ball Scholarship
Committee
University of Alberta International
1204 College Plaza, 8215-112 street
Edmonton, Alberta
T6G 2C8

Deadline for Applications: Friday, March 30.

*Applicants will be notified by mail of the Committee's decision by April 30. Winners will be awarded the scholarship at a formal ceremony during the Edmonton Consular Ball on May 26.

**At the conclusion of the study, the completed research project report should be submitted to the Chair, Consular Ball Scholarship Committee for forwarding to the Consular Corps.

THE EDMONTON AGING SYMPOSIUM – DEADLINE FOR SUBMISSIONS

A thought-provoking two days that involves

presentations which examine the economic and ethical justifications for the development of technologies capable of extending the human lifespan as well as evidence provided by top researchers in the fields of stem cells, tissue engineering, cancer therapies, neurodegeneration and others, that demonstrates these technologies are possible and under development. Poster submissions accepted until March 15, symposium held March 30-31. Cash prizes for best posters in biomedical and social sciences.

Intended audiences: policy-makers, health care professionals, researchers, and educated laymen. Cost: \$95 for students and \$140 for academics. Includes breakfast and lunch.

Sponsored by the University of Alberta, City of Edmonton and The Methuselah Foundation. Location: Bernard Snell Hall, University of Alberta Hospital, 112 Street and 87 Avenue.

Contact Kevin Perrott, Department of Biochemistry at: 780-983-8383 (phone), 780-492-0886 (fax) or at kevin.perrott@edmontonagingsymposium.com. Web site: <http://www.edmontonagingsymposium.com>

CHAIR REVIEW COMMITTEE: FACULTY OF ARTS

Dr. John Newman's first term as Chair of the Department of Linguistics will end on June 30, 2007. Dr. Newman has indicated that he intends to seek a second term and in accordance with University regulations a Review Committee has been established.

An open public forum with Newman has been scheduled for March 13 at 3:30 p.m. in 4-70 Assiniboia Hall at which Newman will discuss his vision for the future direction of the department. The Review Committee invites comments from members of the University community on the state of the Department of Linguistics under the leadership of the current Chair. Comments should be addressed to Dr. Gurston Dacks, associate dean (academic) 6-33 Humanities Centre, or e-mail gurston.dacks@ualberta.ca, and reach the faculty office by March 21. Written submissions must be dated and signed. This information is being collected under the authority of section 33 of the Alberta Freedom of Information and Protection of Privacy Act (FOIPPA) for the purpose of candidate suitability.

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Evolving Equality

Hate Crimes & Human Rights

What You Should Know and
What You Can Do to Create
a Safer Campus Community

March 21, '07

5:00-6:30pm
Room 165
Education South Building

- > Sergeant Robinder Gill
Edmonton Police Service's
Hate and Bias Crime Unit
- > Kristopher Wells
Member, Edmonton Police
Chief's Advisory Council

All members of the university
and larger community
are invited to attend this
FREE event.

Sign language interpreting
and real time captioning
services will be provided.



This event is in recognition of March 21 as the
International Day for the Elimination of Racial Discrimination.



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ACCOMMODATIONS FOR RENT

REAL ESTATE – Buy or Sell, Leases (furnished/unfurnished). Janet Fraser or Gordon W.R. King. Telephone: (780) 441-6441, www.gordonwking-assoc.com Gordon W.R. King and Associates Real Estate Corp.

CENTRAL RIVER VALLEY – luxury, 2 bedroom plus full basement, brick townhouse, 4 bath, 7 appl, 2 balconies, deck with BBQ, garage, 1,700 sq. ft. Non-smokers, no pets, \$1,800 + utilities. Home: (780) 425-3606 or cell: (780) 903-2344.

RIVERBEND 3 BDRM FULLY FURNISHED 2 STOREY TOWNHOUSE CONDO! Wood burning fireplace in sunken living/dining area. Finished family room and laundry in basement. 4 piece bath and 2 piece bath. Backs onto park area. \$1,540/mo plus utilities. Available immediately negotiable. Call Janet Fraser (780) 441-6441. Gordon W.R. King & Assoc. Email: jennfra@interbaun.com.

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AWARD WINNING HIGH STREET CONDO 8TH FLOOR UNIT – with a great skyline view of the city. Granite counter tops, maple cabinetry, high quality appliances, & hardwood. A beautifully appointed master bedroom with en-suite. Den has French doors and could be a guest room. Security cameras at entrance to building. U/G parking/fitness room. The location allows fast access to the Central Business District, UofA, West and North areas of the city. \$2,000/mo. heat and water included. Call Janet Fraser (780) 441-6441 Gordon W.R. King & Assoc. Real Estate Corp. Email: jennfra@interbaun.com.

ASPEN GARDENS 4 LEVEL SPLIT – fully upgraded 3 bdrms up, 1 on main. Spacious L shape living/dining room with eating area in kitchen. Family

room with fireplace off kitchen and patio doors to back yard. Quiet location. Double garage, excellent schools, near UofA. \$2,000/mo plus utilities. Call Janet Fraser (780) 441-6441. Gordon W.R. King & Assoc. Email: jennfra@interbaun.com.

9929 SASKATCHEWAN DRIVE STUNNING VIEW – Executive living with sweeping view of downtown and river valley. 2 bdrms, large den, formal living and dining rooms, state of the art kitchen with top quality appliances. This meticulously cared for building has every amenity including, indoor pool, hot tub, party and rec rooms, air conditioned and heated underground parking. \$3,300/mo inc utilities. Available immediately. For details call Janet Fraser at (780) 441-6441 Gordon W.R. King and Assoc. Real Estate. Email: jennfra@interbaun.com.

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THE GLENORA*, AN EXECUTIVE UPSCALE 14TH FLOOR, 2 BEDROOM, 2 BATH CONDO with a panoramic view of the river valley and downtown with two balconies. Adults 45+ only, with references, no smokers, no pets. \$1,650 includes utilities and indoor parking. Furniture available for purchase. One year lease. 453-6715.

BELGRAVIA 3 BEDROOM – Brand-new deluxe home \$1,800 mo. Plus util. N.S., N.P. Suitable for a professional couple, available April 1st. Call: Margaret/Gary (780) 430-8026.

ACCOMMODATIONS FOR SALE

GARNEAU – END UNIT – Hampton Village – Keyed 3 stall underground heated parking – 2 blks to UofA and hospitals – 2 bedrooms, office/den and painters loft – Awning windows – vaulted ceiling – gas fireplace – developed basement – Price \$495,000 – Darlene Swelin, Royal LePage Noralta 431-5600.

ACCOMMODATIONS WANTED

HOUSE SITTER AVAILABLE – Single female teacher, non-smoker, no pets, will house sit your home while you are away. Will provide references. Available March 2007, Call Connie 499-5284.

RESPONSIBLE MIDDLE-AGED WOMAN WILL HOUSE-SIT when you go away on leave or sabbatical. Minimum of 1 year would be ideal – beginning April 1st, 2007. Excellent references. Contact Jody 437-3993.

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CLIFFORD E. LEE NATURE SANCTUARY (located 15 minutes SW Edmonton) is hiring a post secondary student for maintenance/interpretive work. 14 weeks commence May 1, 2007. Earn up to \$15/hr. based on experience and initiative. Must be returning to school in fall. Mail resume to Lee Nature Sanctuary Society, #7 – 51228 Range Rd. 264, Spruce Grove, AB T7Y 1E7.

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Transitions of care in later life
March 21–23, 2007

Shaw Conference Centre
Edmonton, AB

Opening Speaker: Stephen Lewis, CC, Chair, Stephen Lewis Foundation; former, Commissioner for the World Health Organization's Commission on the Social Determinants of Health

The Greying Nation conference will address how the healthcare sector can adapt care to the changing needs of the population in the later stages of the life cycle. Conference topics will include: models of care, service delivery and education, changing needs of an aging society, innovative technologies and perspectives on aging as expressed through the visual arts.

Conference Highlights

- Internationally renowned speakers;
- Welcome reception;
- Variety of educational poster presentations;
- Exhibit Hall featuring up to 40 exhibits; and
- **The Greying Nation Photographic Exhibition at Edmonton City Hall.**

Education Credits

The College of Family Physicians of Canada: This program meets the accreditation criteria of *The College of Family Physicians of Canada* and has been accredited for up to **10.5 Mainpro-MI credits**.

Canadian College of Health Service Executives: Attendance at this program entitles certified Canadian College of Health Service Executives members (CHE/ FCHSE) to **4.75 Category II credits** toward their maintenance of certification requirement.

The Alberta College of Social Workers This program has been approved by The Alberta College of Social Workers for 10.5 hours "Category A" continuing competency credits.

For more information or to request a brochure contact:

Phone: (780) 735-7912

Toll Free: 1-877-877-8714

E-mail: GRHedServices@cha.ab.ca

Website: www.capitalhealth.ca/greyingnation



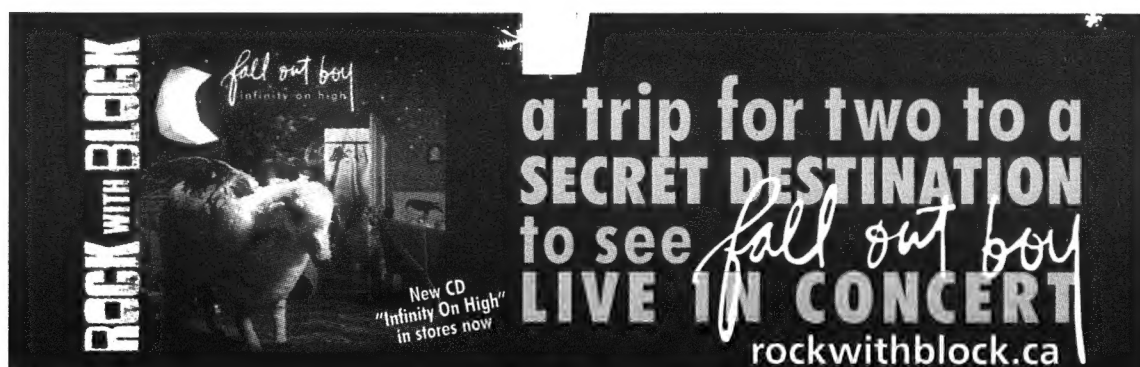
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One of the polar bears identified by Dr. Andrew Derocher during Northern field work.

Dr. Andrew Derocher

nature calls

Polar researchers brave extreme temperatures in the name of science

By Caitlin Crawshaw

For the next two years, scientists from around the world will turn their attention to the Earth's polar regions. Their findings will not only compare present-day conditions with those of past polar reach observations, they'll also mark important new discoveries.

Climate change is the most obvious area of research. Temperatures are rising, and the flora and fauna across the world – more sensitive at the poles than anywhere else – are being affected in different ways. The diverse diet of the grizzly bear allows it to adapt to a changing environment, while collared pika could be on the

verge of extinction after a winter with little snowfall.

Circumpolar communities are profoundly affected not only by climate change, but also through increasing resource exploration and development. Issues of local and global community – indeed, matters of sovereignty – are being addressed.

These complex issues draw the inquiring minds of researchers. But they bring us more than facts. The harsh, haunting landscapes scientists work in are by any measure breathtaking. Its sheer beauty reminds us of the importance of these regions and the dedication of our researchers. ■



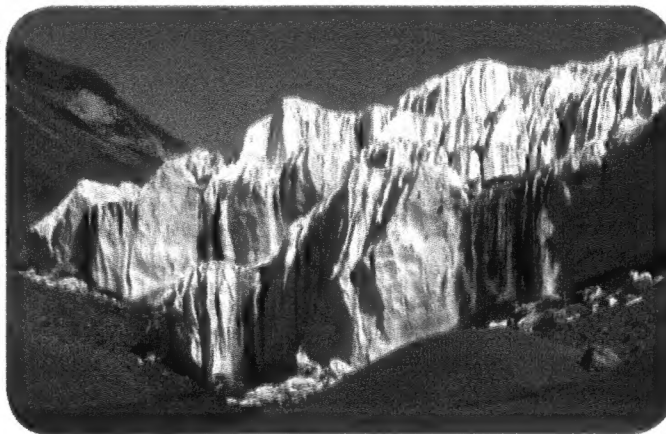
Roy Coulthard

U of A PhD student Roy Coulthard's base camp at Prince Patrick Island, NWT. Coulthard visited the area in 2004 to study the glacial and sea level history of the island, a site far removed from the centres of major ice sheets during the last glaciation. "This particular photo was taken on a rare sunny day in 2004 when the fog wasn't too thick, but thick enough to produce a rainbow," says Coulthard.



A view of Mount Newall in Antarctica's Wright Valley, taken through a 'tafoni' or deeply weathered granite, during one of Dr. Martin Sharp's expeditions to the area.

Dr. Martin Sharp



The McMurdo Dry Valleys in the Ross Sea Region of Antarctica during fieldwork by Dr. Martin Sharp.

Here my interest was in sub-glacial biogeochemistry - how do organisms that live under glaciers or in the dirty ice at the bottom of those glaciers actually survive? What energy sources do they use, where do they obtain nutrients, what traces of their presence and activity can we find in the ice? We were also looking at the distribution and speciation of mercury in snow along a transect from the Ross Sea to the TransAntarctic mountains.

Roy Coulthard

folio **back**
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